

**FACTORS INFLUENCING STUDENTS PERFORMANCE IN KCSE IN  
PUBLIC DAY SECONDARY SCHOOLS IN KIKUYU SUB COUNTY OF  
KIAMBU COUNTY, KENYA.**

**BY**

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**DECLARATION**

I declare that this is my original work and has not been submitted for examination in any other university.

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## **DEDICATION**

This project is dedicated to my wife (Beth Wambui) and children (Florence, Dennis and Ivy), for their unending encouragement and support during the entire period that I was pursuing this course.

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Throughout the period of this project, Prof. Christopher Gakuu, has demonstrated endless faith in my ability. The confidence I have gained through working with him is something that will remain with me for the rest of my career.

The University of Nairobi cannot be forgotten as a very rich ground for doing one's studies. The opportunity to learn and share research with other students provided a source of constant inspiration to me.

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## **ABBREVIATIONS AND ACRONYMS**

<b>APHRC</b>	-	African Population and Health Research Centre
<b>FAWE</b>	-	Forum for Africa Women Educationists
<b>GDS</b>	-	Girls Day School
<b>K.C.P.E.</b>	-	Kenya Certificate of Primary Education
<b>K.C.S.E</b>	-	Kenya Certificate of Secondary Education
<b>K.N.E.C</b>	-	Kenya National Examination Council
<b>M.D.G</b>	-	Millennium Development Goals
<b>M.O.E.S.T</b>	-	Ministry Of Education Science and Technology
<b>MDS</b>	-	Mixed Day School
<b>MOE</b>	-	Ministry Of Education
<b>PTA</b>	-	Parents Teachers Association
<b>SES</b>	-	Social-Economic Status
<b>U.S.A</b>	-	United States of America
<b>UNESCO</b>	-	United Nation Educational Scientific Cultural Organization
<b>UNICEF</b>	-	United Nation International Children Education Fund

## ABSTRACT

The purpose of the study was to establish factors influencing students performance in K.C.S.E in public day secondary schools in Kikuyu Sub County, kiambu county. The study was guided by the following objectives; to determine the influence of School Administration on students Performance; to determine the influence of learning resources on the students Performance; to determine the influence of institutional facilities on the students Performance, to find out the extent to which socio-economic background of the students influences performance, to find out the extent to which the Schools environmental factors influences the students performance. The study made the use of both qualitative and quantitative data. Secondary data has been used by reviewing the existing literature on the factors that influence performance. The study used descriptive survey design. The study population was 19 public day secondary schools in Kikuyu Sub-County which has a total of 1422 form four students and 314 teachers, including the principals (Head teachers). The study utilized a sample size of 266 respondents. Questionnaires with structured and semi structured questions were used to collect the data. The test retest method was employed to ascertain reliability while data analysis utilized both qualitative and quantitative methods.

The study findings revealed that training acquired by the school principals had helped them to perform better in their roles as the school principals; that students used text books in their respective schools; it was also revealed that students' books were replaced immediately. On the provision of books, the study revealed that most of the text books used by the students were provided by the school, other sources of these text books were parents and donations from well wishers; computers were adequate in most of the schools, likewise computer labs, laboratories and classrooms were adequate in most schools. Further it was revealed that library, computer lab, computer were often utilised by the schools; the study revealed that majority of the parents had O' level qualifications, others had standard eight qualifications, diploma qualifications, degree qualifications, Masters Qualifications while others did not possess any academic qualifications. Further it was revealed that majority of the students school fees were paid by their fathers, others by their mothers while others received school fees from their guardians. The study concludes that school environmental factors contributes in influencing academic performance of the students. The study concludes that distance from home to school contributes in influencing performance among the students. Majority of the students walked to school while the rest used vehicles. The study revealed that there were some significant relationship between distance to the road and the performance of students. The study recommends that institutional facilities such as the computers, computer labs, library, laboratory, classrooms and other facilities should be provided in sufficiency. This will boost the learning conditions among the learners and boost their performance academically. It is recommended that school administration reinforce further the utilization of these facilities.

# CHAPTER ONE

## INTRODUCTION

### 1.1 Background of the Study

The research study is about factors influencing students performance in KCSE in Public Day Secondary Schools in Kikuyu Sub County, Kiambu County. In most countries, the success of candidates after completion of school is viewed from the performance in the national examinations point of view. This is because performance in national examinations is a major determinant of the future social and economic status of a candidate (Bradley & Taylor, 2005). It means that performance in national examinations globally is a sensitive issue because it determines the direction and future of the country. Each country's national examinations are based on national curriculum and content standards. In Japan and Korea, students take nationally administered examinations that determine their post-secondary placement, while top scoring students attend the most prestigious public universities.

In France, the baccalaureate examinations are given to students at academic secondary schools (the lycee) as exit examinations and also to determine university placement (McCaskey, 2009). In Germany a similar distinction is made between academic and Vocational Secondary School and passing the Abitur (exit examination from gymnasium or academic secondary school) allows students to join university.

In Great Britain, students study for their A-level examination for university placement. Good performance indicated by high academic achievement is necessary for Students to access good University degrees (Jenkins, Micklewright & Sylke, 2006).

In Italy, students must pass exit examination at both the lower and upper secondary level. At secondary level, the *Esami di Maturita* impacts university attendance or employment (Eckstein & Noah, 1992). In the United States of America, the scholastic assessment Test or the scholastic Aptitude Test and the American College Test are required for entrance into more prestigious and rigorous colleges and universities. (Testing: International National Achievement Test).

In the North West Province of South Africa, the pass rates of grade 12 learners in 1998, 1999 and 2000 were 54.0%, 52.1% and 58.2%, respectively (Riekert, 2000). All stakeholders were concerned about the problem of poor student performance. This poor performance represented a challenge to all South Africans during that period.

Therefore, the need to gain a better picture of the causes and solutions to the problem cannot be over emphasized.

In 1995, when 20,000 out of 28,000 Malawi school certificate examination candidates failed the examinations, representing a pass rate of 19%, all stakeholders from the candidates themselves and their parents, to the teachers and education officials, screamed with disgust at the results. The results were the worst ever in the history of Malawi School certificate examinations equivalent to the British Ordinary levels (Malawi School Certificate of Education report, 1996).

If any proof was needed about the bleak future facing the nation's educational system, the latest West African Examination Council School Certificate Examinations is one. The result of May/June 2008 examination, usually organized by the West African Examination Council shows that out of the 1,369,142 that sat for the examination only 188'442 candidates (representing 13.76 per cent) passed with the five credits in English language, Mathematics and three other subjects. That means that about 83% of the candidates failed to achieve the required five credits pass for entry into any of the Nigerian Universities (West Africa Examination Council Report, 2008).

Results of 2006 senior six examinations which were released by the ministry of education in Rwanda indicate that Kigali schools were miserably declining in performance and trailing upcountry schools (Rwanda National Examination Council, 2007).

The Ministry of Education Science and Technology (2000) in the republic of Kenya observes that performance in examination is one indicator of educational effectiveness. It allows educational stakeholders to assess whether a school is declining or improving in the performance of national examinations.

According to KNEC annual report (2010), titled *Education*: The KCSE 2010 had 213,438 candidates scoring C- and below. The large number accounts for an astonishing 60% of those who sat for the examinations. Whereas the examination was sat by 357,488 candidates only 27% obtained mean grade of C+ and above which is considered the minimum university entry benchmark. The report noted that, St. Mark's High School being the last with a mean grade of only 1.58 sat on the edge of D-. Out of 76 candidates from that school, 39 scored E, 29 scored D- and 7 scored D. Only one candidate managed to Score D+. Second from bottom was Eastern Province's Kyulu Secondary School which had a performance index of 1.64. The best

student in a class of 25 had a D, 14 students scored D- and 10 of them scored E. Bute Girls Secondary School in North Eastern Province was the third worst performer. Some 22 of its candidates obtained a mean grade of E, while 13 of them scored D-. Nairobi's Guru Nanak Secondary School had a mean grade of 1.8. Eighteen of its candidate scored E. Nyanza Province had the highest number of schools in the bottom 50 institutions. It contributed 17 candidates to the list of failure. It was followed by Central with 10 schools, Eastern with 7 schools, Coast with 6 schools and Nairobi with 5 schools.

Rift Valley had only two schools on the list, while North Eastern had one. There was no school from Western Province on the list. A massive 154,830 students representing 43% of the total candidature obtained D+, D, D- and E respectively, the lowest grades in the KCSE ranking. To make the matter worse, the number of candidates who obtained grades of D- and E in year 2010 stood at 47,405 compared to only 18,131 Students who obtained the first two top grades of A and A-. Over 5,500 secondary schools across the country have limited capacity to prepare their students for higher education and further training. Whereas those schools would like to link their poor performance to limited resources, emerging evidence indicate poor supervision of curriculum, chronic teacher and student absenteeism as key to poor performance by that category of schools.

The KNEC also blame teachers for poor performance. "Students are failing in Science subjects because their teachers are drilling them to pass examinations by memory, through repetitive rather than practical learning." The report continued to point out that students' lack of proficiency in English is also a serious handicap in national examinations, with misspelling of scientific names, terms and simple every day words a common feature. The report recommended that teachers cover the syllabus early enough to create sufficient time for comprehensive revision with the students.

The KCSE results in Kenya play an important role in this development, for it marks the termination of a four year secondary course. It is used for selection of students into university, training in middle level colleges and training for vocational and technical jobs (Master Plan on Education 1997-2010). The selection of students to these institutions rely heavily on examination scores which depends on school set up, organization structure, environment and management or governance by the principals.

## **1.2 Statement of the Problem**

According to K.C.S.E result analysis of 2012, the performance of students in K.C.S.E Examination in Public Day Secondary schools in Kikuyu Sub County is worrying as only 82 out of 1405 students from Public Day secondary schools in Kikuyu sub county, Kiambu County made it to higher institutions of learning (Universities). Rungiri which is both boarding and day had an average mean score of 6.522199. Karai Mixed, Musa Gitau, St. Kevin and Kikuyu Day had average mean scores of 4.7, 4.4, 4.0 and 4.2 respectively while the rest of the Public day schools scored less than 4 . This is despite the fact that all Day Schools had Government seconded teachers and admit students from the same catchment area with similar entry points. The government has further through CDF invested a lot in the establishment of Public Day Schools within the different localities. These enjoy low school fees as compared to the Boarding Schools. This trend needs to be reversed.

It is against these backdrops that the researcher felt the need to investigate the factors that are influencing students' performance in K.C.S.E in Public Day Secondary Schools in Kikuyu Sub County, Kiambu County.

## **1.3 Purpose of the Study**

The purpose of the study was to investigate the factors influencing students' performance in KCSE in Public Day Secondary Schools in Kikuyu Sub County and how to address them.

## **1.4 Objectives of the Study**

The study sought to fulfil the following objectives:

1. To determine the influence of School Administration on the students' performance in K.C.S.E.
2. To determine the influence of learning resources on the students' performance in K.C.S.E.
3. To determine the influence of institutional facilities on the students' performance in K.C.S.E.
4. To find out the extent to which socio-economic background of the students influences their performance in K.C.S.E.
5. To find out the extent to which the Schools environmental factors influences students' performance in K.C.S.E.

### **1.5 Research Questions**

The study sought to answer the following research Questions

1. How does school administration influence the performance of students in KCSE in Public Day Secondary Schools in Kikuyu Sub County?
2. How do Learning Resources influence the Performance of Students in KCSE in Public Day Secondary Schools in Kikuyu Sub County?
3. How do the institutional facilities influence the performance of students in KCSE in Public Day Secondary Schools in Kikuyu Sub County?
4. To what extent does a student's socio-economic background influence performance in KCSE in Public Day Secondary Schools in Kikuyu Sub County?
5. To what extent do Environmental factors influence students' performance in KCSE in Public Day Secondary Schools in Kikuyu Sub County?

### **1.6 Significance of the Study**

The findings of this study will help the Principals, students and Schools' Board of Governors in Kikuyu Sub County to know the factors that influence students' performance in KCSE in Public Day Secondary Schools and how to address them.

The findings are also vital and timely because the government, parents and other stakeholders in education are spending a colossal amount of their resources in education, thus poor performance leads to undesirable wastage and denies students entry into competitive courses when furthering their education. Lastly, the findings of the study will help in mapping out strategies for performance improvement.

### **1.7 Limitations**

First, some of the respondents especially principals were not available on the day scheduled for the interview due to inevitable circumstances. Secondly, the study was limited to Public Day Secondary Schools within Kikuyu Sub County and hence can only be generalised to Kikuyu Sub County.

### **1.8 Delimitations of the Study**

This study was restricted to the factors that influence students' performance in K.C.S.E. Examination in Public Day Secondary Schools in Kikuyu Sub County. The extent to which these study findings may be applied to other Sub Counties in the country is an area which has to be confirmed through further research.

## **1.9 Assumptions of the Study**

The study was based on the following premise:-

All the respondents gave true and accurate information to the questions in both the questionnaire and oral interview ; the schools' ranking list provided using mean scores are accurate and therefore accepted as a way of determining the actual performance of each school in the National Examination ;the students in the schools under study had attained the minimum entry requirements for public secondary school; the teachers who are deployed in the schools under study have the required academic and professional qualifications for teaching in public secondary schools and lastly but not least, Kikuyu Sub County has the most number of factors associated with Poor Performance of Public Day Secondary Schools in K.C.S.E Examination in Kiambu County.

## **1.10 Definition of Significant Terms**

This section gives definitions of the significant terms as used in the context of this study.

**Academic performance:** This refers to a score of grade C+ and above.

**Factors:** Refers to the observable and non-observable characteristics influencing students' performance.

**Institutional facilities:** Refers to facilities like laboratories, libraries and the nature of the learning environment.

**K.C.S.E:** Refers to the final national examination, which is undertaken by students at the end of their fourth year of secondary school.

**Learning resources:** Refers to equipment used by the students for smooth learning.

**Performance:** Refers to grade attained by students in K.C.S.E.

**Public Day Secondary school:** Refers to a four-year post-primary school where students attend schools during the day and spend the night at their respective homes/ accommodation facilities outside the schools. The schools are developed, equipped and provided with staff from public funds by the government, parents and community.

**School administration:** Refer to principal's leadership styles that influence students and school staff to work hard in order to achieve better results at national examinations.

**School's Environmental Factors:** Refers to the surrounding of a school including roads, human settlements and related activities.

**Socio-economic background of the student:** Refers to the parent's level of education, family income, family size and expectations of the parents.

**Socio-economic status:** Refer to a combination of parent's occupational prestige, parent's education and family income.

### **1.11 Organization of the Study**

Chapter one entails Background of the study, statement of the problem, purpose of the study, objectives of the study, research questions, significance of the study, limitations, delimitations of the study, assumptions of the study and definition of the terms. On the other hand, chapter two covers literature review which includes: school administration, learning and teaching resources, institutional facilities, student socio-economic background and last but not least Schools physical and environmental while Chapter three entails the research methodology which comprises of research design, target population, sample size and sampling procedure, data collection instruments, reliability of the research findings, data collection procedures and data analysis procedures. Chapter four covers analysis, presentations and interpretations; This includes response rate, general information of respondents, school administration, learning and teaching resources, institutional facilities, students socio-economic background, schools physical and environmental factors and school performance and finally chapter five deals with summary of findings, Discussions, Conclusions and Recommendation. This includes summary of findings, Discussions of findings, conclusions of the study, Recommendations and suggestions for further studies.

## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.1 Introduction**

This section will review literature related to factors that may influence performance in national examination and has been divided under the following sub-headings: school administration, learning and teaching resources, institutional facilities, student socio-economic background and last but not least Schools physical and environmental factors.

#### **2.2 School Administration and Academic Performance**

Ayot (2000b) noted that management is key in equality of performance. Hence he noted that poorly managed schools do suffer myriads of problems such as lack of cooperation among staff, students and support staff. This leads to lack of motivation due to loss of confidence in the management system. This eventually leads to poor performance in national examinations which sells the school name badly.

Otieno (2011b) found that management styles had influence in academic performance since obstructive styles discouraged enhancement of creativity and team work and killed motivation which enables total quality performance in both teachers and students. Efeza (2011b) on a study on factors influencing academic performance in Primary schools in urban slums in Kenya found that School administration is a crucial element which determines school's academic performance. The level of collaboration between teachers, school management officials, parents and pupils determines the success of the school.

According to Harris (2003) Education globally is under pressure from the latest initiatives and innovative towards building the headteachers who are direct implementers of change in education. This means, education leadership require a shift from traditional management and administrative realms to distributed participatory where responsible leadership creates organizational culture that enhance the growth and development of all in teaching and learning.

The Ministry of Education Science and Technology has lined up the programmes to support Head teachers improve leadership strategies that can lead to academic performance).This includes well designed courses by the Kenya Education Staff Institute (K.E.S.I.) and the capacity building through short courses so as to improve leadership skills for headteachers. (MoEST, 2004).

Headteachers play a vital and multifaceted role in setting the direction for schools that are positive and productive work places for teachers and vibrant learning environment for children. More than ever, in today's climate of heightened expectations, headteachers are in the hot seat to improve teaching and learning (Levine, 2005). In order to reach that distance horizon, they need to be educational visionaries, instructional and curriculum leaders, assessment experts, community builders, public relation experts, facility managers and special programs administrators (Devita, 2005).

Gachau (2011) Study on effects of Principal's Leadership styles on academic performance in Secondary schools in Imenti North district revealed that leadership style influences the educational process in producing academic achievement.

Kelley, Thornton, and Daughterty (2005) on their study on relationship and school climate education. Found that educational leadership is possibly the most important factor of an effective environment.

Barasa (2007) in his book entitled "Organization and Management," asserts that dressing which is a non-verbal communication used by the head teachers in schools can portray a negative or positive picture. The head teacher presence is felt whenever he is seen hence he/she can be emulated by the teachers, parents and the students. Many students and teachers who meet the head teacher notice the dress code and the way he/she carries her/himself. The manner of speaking and conduct also enables school community to work extra hard to be smart and well organized as the head. In case he /she is the type of a person who dresses carelessly, looks miserable throughout his/her life time in the school, he/she will obviously contribute towards poor performance of the students because he/she lacks required respect.

In a study carried out in Kenya, effective communication strategies in any school requires the principal to possess technical skills which refers to the ability to communicate about technical matters with teachers, students and other stakeholders from diverse functional background in the form that is most appropriate and understandable. He should also possess interpersonal skills which refer to the ability to understand the needs and values of the teachers and the students in the school community to influence them resolve conflicts build cohesiveness and improve on the academic performance of the students (Bulinda, 2009). A study done by Otieno (2009) on Gusii schools in Kisii, found that poor administration of the schools led to

lack of motivation upon teachers which resulted to students doing poorly in national examinations.

Passos (2009) in her study on teacher competence and its effect on pupil performance in Mozambique schools, found that the age and the years of experience of the school head had an influence on motivating the teaching staff which in turn led to pupil performing well in mathematics. Further, the study revealed that unless school heads are exposed to further training and development in school administration, hence undergo professional development, there tends to be no significant difference in performance between a school head with four (4) to eleven (11) years of experience and one with twenty (20) years of experience.

### **2.3 Learning Resources and Academic Performance**

Learning materials (resources) include textbooks, exercise books, stationeries and teaching aids such as dusters, chalks, wall map and protractor. The availability of these resources makes a difference in the learning achievement of the student.

Ayot (2000a) noted that shortage of materials and equipment in schools are sometimes an embarrassment and a factor that influences performance. This has been noted as one of the greatest problem in many schools which need careful consideration. Hence the endeavour of the government to allocate funds for purchase of important resource materials for schools to ensure equitable distribution of learning and teaching resources in schools so that all students have equal chances at examination time

Otieno (2011c) observed that unavailability and inadequacy of instructional materials and resources influenced academic performance of students in public secondary schools, where those schools which lacked adequate instructional materials and resources such as text books, exercise books among others performed poorly in national examination; while those with adequate instructional resources performed tremendously well in national examinations.

According to Ngware et al. (2008b), text books were an important resource in teaching and learning. Mucira (2011a) in his study observed that schools with adequate teaching and learning resources performed well in national examination compared to those with inadequate or without teaching and learning resources.

Carol Mandi in the Daily Nation January 7<sup>th</sup> 2003 pg 6 in an article entitled “Examination do not tell the whole story” stated that, the old ranking system was

unfair in that it ranked the more affluent schools with those with inadequate facilities. There are areas in Kenya where pupils learn under trees and have one teacher for all subjects. There are also areas where pupils miss school due to drought and starvation. Ranking these schools at par with those where pupils are driven to school by bus or private means and the only after school work they have to accomplish is their homework, is inappropriate. Mutai (2006) support the arguments by Yadar (2007); Yara and Otieno (2010) by asserting that learning is strengthened when there is enough reference materials such as text books, exercise books and teaching aids. He further asserted that academic achievement illustrates per excellence the correct use of these materials. Yadar (2007); Yara & Otieno (2010) studies on teaching/learning resources and academic performance in mathematics in secondary schools, in Bondo county, Kenya revealed that teaching and learning materials such as textbooks, teaching aids (chalk, board, ruler and protractor), stationeries among others affected performance of the learners.

UNESCO (2008) report on global monitoring, United Kingdom revealed that increased availability and use of text books improved the students learning particularly to low income setting. Passos (2009) study on a comparative analysis of teacher competence and it's effects on pupil performance in upper primary schools in Mozambique, revealed that shortage of basic materials such as exercise books, pens and pencils made pupils passive learners because it is not possible to take notes about the lesson or complete exercise to apply what they learn and as a result, teaching and learning becomes ineffective leading to low performance of the pupils. Otieno (2009) study on factors influencing the performance of Gusii schools in Kenya, found that schools with inadequate teaching resources resulted to poor school performance in national examination.

#### **2.4 Institutional Facilities and Academic Performance**

Ngware et al. (2008a) observed that facilities are critical in safe school environment as they influence children health and well-being. Onsomu et al. (2004) noted that the general condition of buildings in community schools in Kenya was very poor which as a result demotivated teachers to teach and students to learn and its consequences was negative results in national examinations.

According to Mwangi (2012) study on determinants of academic performance in Kenya Certificate of Secondary Education in Public secondary schools in Kiambu

West District observed that majority of schools that is 55.6% did not have equipped laboratories and libraries, where such facilities were found they were not adequately used hence these was reflected in these schools' poor performance in National examinations.

Efeza (2011a) on a study on factors influencing academic performance in Primary schools in urban slums in Kenya found that School infrastructure does influence academic performance; however, good infrastructure does not guarantee improved performance as long as other factors that influence academic performance are not addressed.

Republic of Kenya (2007) indicated that “recent expansion in enrolment has not been matched by increase in physical capacity and human resources”. This has affected both the students and the teacher performance. Otieno (2009) study in Gusii Schools in Kisii District found that in schools where physical facilities such as laboratory, library among others were not available, the students performed poorly in national examination especially in science subjects.

### **2.5 Students Socio – economic Background and Academic Performance**

The term Socio – economic status” (SES) is used by sociologists to denote an individual or family’s overall rank in the socio and economic hierarchy (Mayer and Jencks, 1989). In most research, including national studies, SES has been measured as a combination of parents’ educational, parents’ occupational prestige, and family income (Mayer and Jencks, 1989; White, 1982).

Otieno (2011a) Study on factors influencing academic performance of students in public secondary schools in Teso South District, Western Province found that parental involvement in students school work and other school programs was very key in influencing positive academic performance in students. Otieno (2011d) noted that parent’s weakness in provision of academically supportive aid to students in terms of school fees which they paid late or not attributed to students absenteeism from class programmes. This led to failure of students not attending classes regularly, hence not covering the expected syllabus in time thus resulting to low academic performance.

In general, family process models Linver, Brooks-Gunn and Kohen (2002), Yeung, Linver and Brooks – Gunn (2002) have examined how parenting behaviours, such as the structure of the home environment influence children’s achievement outcomes. Other researchers have focused on specific behaviours such as harsh parenting,

nurturing, and warmth (Conger et al., 2002; Mistry, Vanderwater, Houston, and Mc Loyd, 2002). These has been less work on how factors like parental beliefs such as achievement expectations or efficacy might function as links between socio – economic status(SES) and achievement outcomes. In general, parent job status and parent education also seems to have different effects. Parents’ higher job status and mother’s education improved the academic performance of their children (Chui and Khoo, 2005).

Coardy and Parker (2002) also found that maternal education had the most consistent direct influence on children’s cognitive and behavioural outcomes with some indirect influence through a cognitively stimulating home environment. Coardy and Parker however examined only two, quite broad aspects of family mediators: learning stimulation and parental responsiveness. Mediation might have emerged if other parental behaviours and attitudes were examined.

According to Dermie et al. (2007), lack of parental support among the Somali students in the United Kingdom contributed to their poor performance. Many of the Somali parents were unable to offer help to their children because of lack of prior education and inability to use English.

Chui and Khoo (2005) in a study on effects of resource, inequality, and privilege bias on achievement found that fifteen year-old students across forty-one countries (N=193,076) scored higher on tests in mathematics, reading and science when they had more economic resources in their country, family, and school. The positive log-linear effect of per capita (GDP) was consistent with past research showing that students in richer countries benefited from more nutrition food, books in the home, and better health care, all of which in return, supported higher academic.

A study by Hinum and Park (2004) determined that there was a positive correlation between the presence of reading materials at home and performance in rural China.

In Kenya, poverty alone accounts for many school failures and high drop-out rates. Studies by Mwinzi and Kimengi (2006) in Kenya indicated that being sent home frequently to collect fees balance interfered with students learning and consequently their academic performance. On average, students take up to one week per month to report back to school, in total, the students ends up missing an average of one month per term which translates to one term per year (Mwinzi and Kimengi, 2006). The consequences of missing classes have far-reaching effects on the student’s that

include increasing probability of dropping out, discouraging hard work, and stressing the students while they are trying to cover missed lessons hence increasing their chances of failing (Mwinzi and Kimengi, 2006).

According to Miya (2011) study on influence of home environment on academic performance of day secondary school students in Muhoroni District, Kisumu county found that Family socio economic status influence academic performance of students likewise parent's levels of education in that educated parents motivated their children to work hard as they know the importance of education, act as role models to their children and provide the necessary resources for their children to improve their performance. Also, family size had an influence on academic performance of day secondary school students where family size was small; the families were able to provide all the resources required for learning unlike where the family was large.

According to Muola (2010), pupils' motivation to do well in academic work is to some extent dependent on the nature of their home environment. It is therefore recommended that parents need to be aware of the importance of their role in their children academic achievement motivation so that they can provide the necessary environment at home. There is usually a common belief that most parents belonging to low income level are disinterested in their child's education. This belief is prevalent even with policy-makers and experts on education. According to Husain (2005) this belief is manifested in statements like "illiterate and semi-literate parents see no reason to send their children to school", or "The vast majority of adult illiterates belonging to the poor economic stratum are not convinced of it (that literacy is a basic right of every individual)".

According to Wade and Moore (2000) parents who introduce their babies to books give them a head start in school and an advantage over their peers throughout primary schools. Involvement with reading activities at home has significant positive influence not only on reading achievement, language comprehension and expressive language skills but also pupils' interest in reading, attitudes towards reading and attentiveness in the classroom. (Domitriovich and Welsh, 2004). Parental involvement in their child's literacy practices is a more powerful force than other family background variables, such as social class, family size and level of parent's education (Flouri and Buchanan, 2004).

Desforges and Abouchaar (2003) notes that although parental involvement has the greatest effect in the early years, its importance to children's education and literacy outcomes continues into the teenage and even adult years. According to Boke and Scher (2002) it is important that parents and caretakers are aware of the significant contribution they can make to their children learning by providing a stimulating environment around language, reading, and writing as well as supporting at home the school's literacy agenda, both during early years as well as the primary and secondary years of schooling.

Mutuaruchiu (2011) study on influence of parental characteristics on K.C.S.E performance in public day schools in Abothuguchi, central division, Imenti central district, Kenya found that parents who were involved in their children's academic activities motivated their children in performing highly in national examination. Ozturk (2001) in a study done in U.S.A on personal and social factors that influence and advanced mathematics course taking in high school in Virginia, found that parent involvement highly influenced academic performance of their children as well as course taking.

Clay Muganda (2002) article entitled: "Poor Background does not always lead to poor performance" concurs with this and adds that poor background doesn't always lead to poor levels of performance. His view is that: "children from poor background are good learners because they know they have nothing to fall back to. They are also disciplined because they fear being sent away from schools and back to the deplorable conditions in which they lived earlier. Many children from well to do families on the other hand become complacent because they think that they will take after their parents whether or not they work hard. The knowledge that they have something to fall back on makes them lazy even if they are capable of doing well (East African Standards January 16<sup>th</sup> 2002 pg 1-2). Cecilia Kamuyu article in the East African Standard News paper February 16<sup>th</sup> 2002 pg 20 entitled "parent as the first teacher," She argued that, parental involvement makes a difference in a child's learning. Studies have shown that when parents get involved in school activities, performance in examination greatly improves so do facilities. The pupils also become more motivated and develop confidence.

Otieno (2009) study on Gusii schools in Kericho district found that maximized support from parents enabled students perform better in their national examination.

On the other hand, lack of parent financial support for example not paying school fees or not paying it in good time, result to their children been sent away from school and as a result, these students perform poorly in their national examinations due to absenteeism and lack of proper syllabus coverage. Mwita (2010) study on social capital and academic achievement in Kenya concurs with Ozturk study by noting that students whose parents were involved in their academic lives and created a good home environment tended to perform better than those whose parents were detached. He further observed that constant parent and teacher interactions improved academic achievement of the students.

## **2.6 School's Environmental Factors and Academic Performance**

According Desarrollo (2007), Scharff and Brady (2006) and Oloo (2003), the greatest problem faced by day students was home environment that was not conducive to reading. Other problems includes: long distances from school, bad company at home, lack of proper accommodation and proper diet. According to reports by African Almanac (2004) and studies by Holsinger, Jacob and Migimu (2002) Chediell, Sekwao and Kirumba (2000) and Oloo (2003), the majority of day secondary schools continued to perform poorly in the national examinations compared to boarding secondary schools. For example according to Kisumu District Education office, about 65% of schools which were ranked in the top ten in the district from 2005 to 2008 in the National Examinations were boarding secondary schools.

A study by Scharff (2007) in Malawi found out that girls were more vulnerable than boys to abuse, both while in transit and when in school. To avoid lengthy walk to school some girls make their own lodging arrangement near community day schools that do not offer boarding facilities (Scharff and Brady, 2006). Those self-boarders are unsupervised by the school and are therefore at risk of theft and self-abuse (Scharff, 2007).

A research into the effect of living or learning in noisy surroundings was initially driven by concerns about exposure to chronic external noise, such as that due to aircraft or road traffic. In a review of the area, Stansfeld and Matheson discuss the possibility of health and psychological problems and conclude that: 'The evidence for effects of environmental noise on health is strongest for annoyance, sleep and cognitive performance in adults and children.' (2003, p.253).

Cohen et al (1980) found evidence of raised blood pressure and signs of learned helplessness due to noise, although these problems have not been found by other studies (such as Haines et al, 2001a). A more reliable finding is that chronic noise exposure impairs cognitive functioning and a number of studies have discovered noise-related reading problems (Haines et al, 2001b; Evans & Maxwell, 1997), deficiencies in pre-reading skills (Maxwell & Evans, 2000) and more general cognitive deficits (Lercher et al, 2003). As a result, reviews of the consequences of aspects of the physical environment tend to conclude that acoustics and noise are important factors in a school environment (Fisher, 2001; Schneider, 2002; Earthman, 2004). Schneider comments that in general the research is 'consistent and convincing: good acoustics are fundamental to good academic performance'. (2002, p.6).

A study by Scharff (2007) on primary not enough: proposal for safe and affordable secondary education in Malawi found out that girls were more vulnerable than boys to abuse both while in transit and when in school. To avoid lengthy walk to school, some girls make their own lodging arrangement near community day schools that do not offer boarding facilities (Scharff and Brandy, 2006). Those self-boarders are unsupervised by the school and are therefore at risk of theft and self-abuse (Scharff, 2007).

A study by Coardy and Parker (2002) on cost-effectiveness analysis of demand and supply of educational intervention in Mexico had shown that distance to secondary school had consistently large negative effects on the probability of enrolling in secondary school. The impact in general was much larger for girls than boys. For girls, a reduction of distance to the nearest secondary school by one kilometre would result to an increase in the probability of attending by 8.6% whereas for boys the corresponding increase would be approximately 6.3%. Long distance from home to school is a likely cause of under participation among rural communities in Africa where only few schools exist (Malenya, 2008). According to De Jaeghere (2004) in Africa lack of formal secondary schools in close proximity to girls' homes prohibits their participation.

## **2.7 Theoretical Framework**

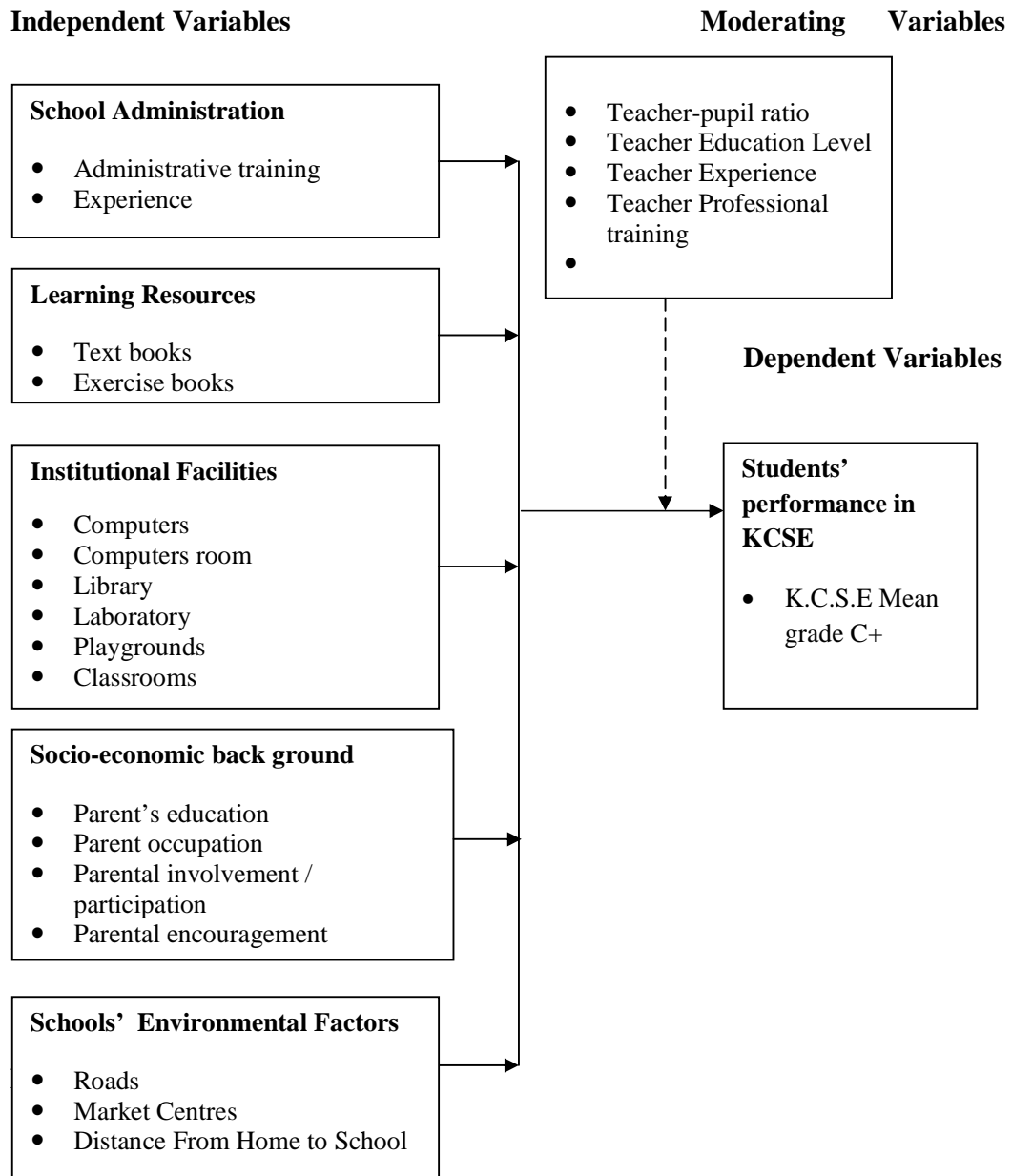
Expectancy theory of motivation by Victor Vroom will guide this study. Vroom holds that people will be motivated to do things to reach a goal if they believe in worthy of that goal and if they do, will help them achieve that goal. Martin Luther

observed this long ago by saying “Everything that is done on this world is done in hope.”The basic idea of expectancy theory is that motivation is determined by the outcomes or the rewards people expect to get as a result of their action. The expectancy theory suggest that the amount of effort an individual is willing to exert depends on the perceived relationship between effort and performance (expectancy), the perceived relationship between performance and outcome (instrumentality) and the value of the outcome or reward (valance).An individual is motivated well if the individual has strong effort, performance expectancy, stronger performance reward expectancies thus two students or two schools may not exert equal effort because they perceive different expectation, instrumentalities and valances. An example of a student who is self-motivated find intrinsic valence in his/her performance at school hence has strong study ethics. Such students derive their performance satisfaction from their work by doing it effectively and efficiently.

Expectancy theory can be applied to student’s performance by bringing about understanding on how they can be motivated in order to improve their performance through the use of role models who are within their social environment who performed well and lead good and high living standards. Relating goals set by their expectation, this can motivate performance in order to achieve their goals in life.

## **2.8 Conceptual Framework**

The conceptual frame work in figure 1 shows the relationship between the dependent variables and the independent variables. The independent variables were the factors that influenced the dependent variable in this study. From the literature reviewed, the study categorized the factors that influence performance in K.C.S.E Examination in public day secondary schools into five categories namely; school administration, learning resources, institutional facilities, student socio-economic back ground and last but not least school’s environment. These become the independent variables for the study. These factors were conceptualized to determine whether they influence students’ performance in K.C.S.E Examination as shown in Figure 1 below.



**Figure 1 Conceptual Frame work**

The above conceptual frame work shows the relationship between the independent variables and the expected outcome which was students performance as measured by K.C.S.E results. In the above frame work, effective school administration creates a better learning atmosphere which boosts students' morale hence positively influencing their performance. It is also true that the more the learning resources are available, the more they positively influence performance. Provision of necessary institutional facilities does positively facilitate learning hence better performance. It is

also factual that the higher the socio economic status the more it positively influences the students' performance. Lastly, a serene surrounding contributes to a conducive learning condition. On the other hand the reverse of the above is also true that is the lack of the above factors lead to a negative performance.

## **2.9 Research gap**

Studies on factors influencing students' performance in national examination in Kenya have been done outside Kikuyu sub county and even those done within the Kikuyu sub county had tailored their studies on factors affecting students' performance in national examination upon public primary schools, hence none had researched on the same factors especially at public boarding and day secondary schools level in Kikuyu sub county. On contrary, this research was about the factors that influence students K.C.S.E performance in public day secondary schools in Kikuyu Sub County. The study was significant as it generated research evidence needed to help the principals, students and schools' board of governors in Kikuyu Sub County to know the factors that influence performance of students in K.C.S.E examination in public day secondary schools and how to address them. In addition the findings help in mapping out strategies for performance improvement.

## **2.10 Chapter Summary**

The chapter reviewed the relevant literature in relation to the research questions presented in the study. It identified the factors influencing students' performance in K.C.S.E examination under five headings namely; school administration; learning resources; institutional facilities; student socio-economic background and schools environment. The literature was based on global, regional and Kenyan cases. The following chapter describes the methodology used to carry out the study.

## **CHAPTER THREE**

### **RESEARCH METHODOLOGY**

#### **3.1 Introduction**

This section discussed the methodology that was used in collecting the study data. The elements include research design, target population, sample size and sampling procedure, data instruments, validity of the research instruments, reliability, data collection procedures and data analysis procedure.

#### **3.2 Research Design**

The research design has been defined as a frame work of planning and conducting a study (Ogutu, 1985). The purpose of this study was to investigate the factors influencing students' performance in KCSE Examination in public day secondary schools in Kikuyu sub county, Kiambu County. To achieve this, descriptive survey design has been chosen, this is because the researcher was not able to manipulate the variables for the simple reason that they have already occurred. The design allowed the researcher to gather information, summarize, present and interpret for the purpose of clarification.

#### **3.3 Target Population**

According to Alan, Bryman and Emma (2007), target population refers to the "universe" from which the sample is selected. The target population for the study is the public day secondary schools in Kikuyu sub county. The study population is made of the 19 public day secondary schools with a total population of 314 teachers and 1422 form four students according to statistics given by the Kikuyu sub county Educational officer (August, 2012).

#### **3.4 Sample Size and Sampling Procedure**

Sample is a carefully selected portion or part of the target population while sampling is a procedure where a fraction of the data is taken from a large set of data, and the inference drawn from the sample is extended to the whole group (Mark et al, 2007). According to Mugenda and Mugenda (2003) and (Mark et al, 2007) suggest that a sample size of 10-15% is sufficient, for a survey. This study used 15% of both teachers and form four students to make the sample size of the study. The calculation of the sample size is shown here below.

The nineteen public day secondary schools have a total population of 1422 form four students and three hundred and fourteen teachers including the principals (head teachers). 15% of 1422 form four students leads to  $(0.15 \times 1422) = 213$  approximately, thus each school produced  $^{213}/_{19} = 11$  which is approximately, hence the total number of form four students in nineteen schools is equal to 209 students, while 15% of 295 teachers (excluding headteacher) leads to  $(0.15 \times 295) = 44$  teachers approximately. Therefore each school produced  $(^{44}/_{19}) = 2$  approximately, hence total number of teachers is  $(2 \times 19) = 38$  teachers which when added to 19 head teachers leads to a total of 57 teachers. This leads to a sample size of  $(209 + 57) = 266$  respondents.

The selection of 2 teachers in each school was done through simple random sampling which according to Wallen (1974) ensures that each element within the accessible population has equal and independent chance of being selected. On the other hand, 11 form four students male and female from mixed schools will be selected through stratified random sampling. This procedure is chosen so as to select members from each and every stratum.

Borg and Gall (1989) state that stratified simple random sampling is one in which the researcher first clusters the population according to some predetermined criteria, and then samples separately from each stratum. The purpose of this is to ensure that enough cases of each stratum fall into the sample to make analysis possible. Again simple random sampling was applied to Karenju Girls secondary school which is the only one single sex School, and in all the categories mentioned above the researcher got the list of all teachers and form four students from each school then assign them numbers, after which the numbers were placed in a container and then picking any number at random. The subjects corresponding to the numbers picked were included in the sample, 2 teachers and 11 form four students from each school for the 19 public day secondary schools.

Purposive sampling was used for the 19 head teachers in order to get in depth information concerning variables under study hence arriving at the study samples size of 266 respondents. The form four students were chosen because they have been in the school for extended periods hence provide rich information on their experiences concerning factors that contribute to the varied performance of students in KCSE examination in these public day secondary schools.

### **3.5 Data Collection Instruments**

Questionnaires with both structured and semi-structured questions were used for data collection. This enabled the researcher to capture all the necessary information pertaining to the topic under study. Questionnaires which were useful in reaching a large group of respondents within a short time and with little costs according to Gay (1996) were useful in collecting research data from teachers and form four students who form the largest number of respondents for this study, hence ease time taken to collect the data.

### **3.6 Validity of the Research Instruments**

Validity determines whether the research truly measures that which it was intended to measure or how truthful the research results are (Orodho, 2005). According to Saunders, Lewis and Thonhill (1996) before using your questionnaire to collect data, it should be tested to ascertain validity. The researcher discussed the questionnaire with the supervisor where after screening it , he recommended some corrections which were done in order to improving the level of instruments' validity.

### **3.7 Reliability of the Research Findings**

Reliability is the extent to which results are consistent over time and an accurate representation of the total population under study (Mulusa, 1990). The data will be collected using well tested and accepted procedures which yield consisted data if used on similar studies. The test-retest method will be used to ascertain the reliability. Test-retest measures consistency from one time to the next. During the pilot survey, the research instruments will be given twice to the same group of people to check the consistent of the scores hence making the instruments suitable for use.

### **3.8 Data Collection Procedures**

The researcher carried out pilot survey on three public day secondary schools in the neighbouring Dagoretti District. This was followed by a visit to the 19 schools and the purpose was to brief the head teachers about the research and the topic under study, and then booking an appointment for the administration of the questionnaire.

The questionnaire was used for both students and teachers, where the researcher distributed the questionnaires personally to the respective schools. Group survey method were employed this is according to Sanders and Pinley (1983) where the subjects fill the questionnaires and give them back to the researcher immediately after filling. This ensured that all the questionnaires were filled up hence 99 rate of

response unlike where the questionnaires are left to the respondents to fill later and return them.

### **3.9 Ethical consideration**

All the respondents were treated equally and confidentiality was maintained on all the information obtained from the respondents. This enabled the respondents to feel secure while providing the information sought by the questionnaire.

### **3.10 Data Analysis Procedures**

The data collected through the questionnaire was coded and edited according to the variables under study. The data was analysed using descriptive statistics which enabled the researcher to reduce a large mass of data to simpler, more understandable terms hence making it easier for an observer to understand the data, was used (Gay, 1996). The descriptive statistics utilized in this study included frequency distributions and percentages that were used to describe information with more scores. This was followed by presenting the findings using tables to give a clear picture of the research findings at a glance.

This was enhanced by offering a narrative explanation as outlined in table 3.1

**Table 3.1 Operationalization of Variables**

<b>Objectives</b>	<b>Variables</b>	<b>Indicator</b>	<b>Measure</b>	<b>Scale</b>	<b>Research Design</b>	<b>Data Collection methods</b>	<b>Data Analysis</b>
To determine the influence of school administration on students' performance in K.C.S.E.	School Administration	Administrative training	-Present/not present  - No. of months/years	- Nominal  - Ordinal	Descriptive survey method	Questionnaire  (Structured and semi- structured )	Descriptive statistics
To examine the influence of learning resources on students' performance in K.C.S.E.	Learning resources	Text Books  Exercise Books	Adequate(ratio 1:2) not adequate  Adequate (ratio 1:27) not adequate	- Nominal  - Nominal	Descriptive survey method	Questionnaire  (Structured and semi- structured)	Descriptive statistics
To determine the influence of institutional facilities on students Performance in K.C.S.E.	Institutional Facilities	- Computers - Computer room - Library -Laboratory -Play grounds	- Available /not available -Available/ not available - Available /not available -Available/ not available - Available/ Not available	- Nominal - Nominal - Nominal - Nominal - Nominal	Descriptive survey method	Questionnaire  (Structured and semi- structured )	Descriptive statistics

		Classrooms	-Available/not adequate	- Nominal			
The extent to which socio-economic background of the students influence students' performance in K.C.S.E	Social economic Background the of students	- Parent Education Parent Occupation  Parent involvement Parents encouragement Parents as role model	- levels  - High/low  - Levels  - Present /absent  - Good/Bad	- Ordinal - Ordinal  - Ordinal  - Nominal  - Nominal	Descriptive survey method	Questionnaire       (Structured and semi- structured )	Descriptive statistics
The extent to which the Schools environmental factors influence students' performance in K.C.S.E Examination	Schools Environmental Factors	Roads  Market Centres Distances to school from home	Presence/Absence  Presence/Absence  No. of Kilometres	Nominal  Nominal  Ordinal	Descriptive survey method	Questionnaire   (Structured and semi- structured )	Descriptive statistics
	Students Performance in KCSE .	Mean Score	High/Low	Ordinal			

## CHAPTER FOUR

### DATA ANALYSIS, PRESENTATION AND INTERPRETATION

#### 4.1 Introduction

This chapter discusses the techniques applied to analyze and present research findings, the data analyzed was obtained from the questionnaires, which were earlier issued to the respondents in the target population. The analysis of the response rate was made where actual number of respondents who participated in the study was determined. Since the study aim was to investigate factors influencing students' performance in KCSE in public day secondary schools, the questionnaires that addressed each research objective were analyzed separately in quantitative analysis. Qualitative techniques were applied to ensure that the study findings were reliable and contributed towards establishment of the factors influencing students' performance in KCSE.

#### 4.2 Response Rate

Out of the 38 Questionnaires which were issued to the teachers, 31 of them were correctly filled and returned back giving a response rate of 81.58%, out of the 19 Questionnaires which were issued for teachers 15 were correctly filled and returned back giving a response rate of 78.09%, while 209 Questionnaires were issued out for the students of which 205 were correctly filled and returned giving a response rate of 98.09%. And the response was considered adequate as according to Idrus and Newman (2002) a response rate of 50% is good enough for the social studies. Refer to Table 4.1 Response rate.

**Table 4.1 Response rate**

Population	Response		non response	
	frequency	percentage	frequency	Percentage
Teachers	31	81.58	7	18.42
Head teachers	15	78.95	4	21.05
Students	205	98.09	4	1.91

#### 4.3 General Information of the Respondents

This is basically the information on the population interviewed in this study. It is the demographic characteristics of the sampled population. This section has analysed gender issues, age bracket, education, area of specialization and work experience for the respondents to the study.

### 4.3.1 Analysis of Gender

Table 4.2 shows the data collected on the gender of the respondents, from the data, findings reveals that majority 60% of the Principals respondents were female while 40% of the principals were male. 65% of the teacher respondents were male while 35% were female, 50.3% of the students respondents were female while 49.7% were male. From the findings it can be deduced that majority 128 (51%) of the respondents were male while 123 (49%) were female.

**Table 4. 2 Gender of the respondents**

<b>Gender</b>	<b>F/P</b>	<b>Principals</b>	<b>Teachers</b>	<b>Students</b>
<b>MALE</b>	Frequency	6	20	102
	Percentage	40%	65%	49.7%
<b>FEMALE</b>	Frequency	9	11	103
	Percentage	60%	35%	50.3%

### 4.3.2 Analysis of Age

Table 4.3 indicates the age distribution of teachers and principals, from the data the findings reveals that 12.90% of teachers were aged between (25-30) years, equivalently 12.90% were aged between (31-35) years, 29.03% of them were aged between (36-45) years while 45.16% of them were aged 45years and above. Further 6.66% of the principals were aged between (31-35) years, 26.60% of the principals were aged between (36-45) years while 26.66% of them were aged 46 years and above.

**Table 4. 3 Age distribution for teachers and Principals**

<b>Age</b>	<b>F/P</b>	<b>Teachers</b>	<b>Principals</b>
25-30years	Frequency	4	0
	Percentage	12.90%	0%
31-35years	Frequency	4	1
	Percentage	12.90%	6.66%
36-45years	Frequency	9	4
	Percentage	29.03%	26.60%
46 years and above	Frequency	14	10
	Percentage	45.16%	66.66%

Table 4.4 shows the age distribution for students, from the findings majority 70.24% of the students were aged between (15-17) years, 29.76% of the students were aged between (18-20) years, none of the students respondents were aged between (21-22)years, likewise none of the students were aged 23 years and above.

**Table 4.4 Age distribution for students**

<b>Age</b>	<b>Frequency</b>	<b>Percentage</b>
15-17years	144	70.24
18-20years	61	29.76
21-22years	0	0
23 & above	0	0
<b>TOTAL</b>	<b>205</b>	<b>100</b>

#### **4.3.3 Academic Qualification of the respondents**

Table 4.5 shows the data on the academic qualifications for teachers and principals, from the findings, 12.90% of teachers were Diploma holders, 58.06% were Bachelors degree holders, 19.35% of them were Bachelors degree holders while 9.67% of them possessed other qualifications. 66.66% of the principals were holders of Bachelors degree, 26.66% possessed Masters Degree while 6.66% of the principals were in the possession of other qualifications.

**Table 4.5 Academic Qualifications for both teachers and principals**

<b>Academic Qualifications</b>	<b>F/P</b>	<b>Teachers</b>	<b>Principals</b>
Diploma	Frequency	4	0
	Percentage	12.90%	0
Bachelors degree	Frequency	18	10
	Percentage	58.06%	66.66%
Masters degree	Frequency	6	4
	Percentage	19.35%	26.66%
Any Other	Frequency	3	1
	Percentage	9.67%	6.66%

#### **4.3.4 Analysis of Teaching Experience**

Table 4.6 shows the findings on the teaching experience of teachers and principals, from the data 9.67% of teachers had a teaching experience of between (0-5) years, 22.58% of the

teachers had a teaching experience of between (6-10) years, 3.22% of them had an experience of between (11-15) years, 19.35% of them had an experience of between (16-20) years while 45.16% of them had an experience of 21 years and above. 6.66% of the principals had an experience of between (6-10) years, equivalently 6.66% of the principals had a teaching experience of between (11-15) years, 13.33% of them had a teaching experience of between (16-20) years while 73.33% of the principals had a teaching experience of 21 years and above.

**Table 4. 6 Teaching Experience**

Teaching experience	F/P	Teachers	Principals
(0-5) years	Frequency	3	0
	Percentage	9.67%	0%
(6-10) years	Frequency	7	1
	Percentage	22.58%	6.66%
(11-15)years	Frequency	1	1
	Percentage	3.22%	6.66%
(16-20)years	Frequency	6	2
	Percentage	19.35%	13.33%
21 years and above	Frequency	14	11
	Percentage	45.16%	73.33%

#### **4.3.5 Area of Specialization**

Table 4.7 shows the data collected on the area of specialization of teachers and principals, from the findings, 19.35% of the teachers were specialised in Maths, 38.70% were specialised on Arts, 16.12% were specialised in Maths, 38.70% were specialised in languages while 6.45% of them were specialised in Technical subjects. 13.33% of the principals were specialised in science, 73.33% of them were specialised in Arts, 6.66% specialised in languages equivalently 6.66% of the principals were specialised in Technical subjects.

**Table 4.7 Area of Specialization**

Area of specialization	F/P	Teachers	Principals
Science	Frequency	6	2
	Percentage	19.35%	13.33%
Arts	Frequency	12	11
	Percentage	38.70%	73.33%
Maths	Frequency	5	0
	Percentage	16.12%	0%
Languages	Frequency	12	1
	Percentage	38.70%	6.66%
Technical Subjects	Frequency	2	1
	Percentage	6.45%	6.66%

#### 4.4 School Administration

Objective one of the study was to establish the influence of School Administration on the students' Performance in K.C.S.E., questions related to this objective were addressed to the principals since they were better placed to give an in-depth information pertaining to the school administration, the findings of the study were as indicated in the section below;

##### 4.4.1 Attendance of Refresher Course

Under school administration the study sought to establish whether the principals had attended a refresher course on school administration, from the findings 100% of the principals had attended a refresher course in school administration. Refer to Table 4.8 below; the findings imply that all the principals had attended a refresher course.

**Table 4.8 Response on attendance of refresher Course**

Response	frequency	Percentage
Yes	15	100
No	0	0
<b>TOTAL</b>	<b>15</b>	<b>100</b>

##### 4.4.2 Effects of Training on Performance

Under the school administration further the study sought to establish from the principals whether the training they attended had helped them to perform better in their role as

principals, from the data collected, 100% of the principals agreed that the training they acquired had helped them to perform better in their role as principals.

#### **4.4.3 Length of Service as a Principal**

Further the study sought to establish from the principal on the length of service as principals, from the data collected, 86.67% of the respondents had served for more than 3 years while 13.33% of the respondents had served for 3 years as school principals in their respective schools. Refer to Table 4.9 Length of service as a principal.

**Table 4.9 Length of service as a principal**

Length of service	frequency	Percentage
1 year	0	0
2 years	0	0
3 years	2	13.33
Others	13	86.67
<b>TOTAL</b>	<b>15</b>	<b>100</b>

#### **4.5 Learning Resources**

Objective two of the study was to establish the influence of learning resources on the students' K.C.S.E Performance. Questions related to this objective were addressed to the principals since they were better placed to give an in-depth information pertaining to learning materials, the findings of the study were as indicated in the section below;

##### **4.5.1 Textbook Usage**

The study sought to establish whether the students used text books in their respective schools, the question was addressed to the students and head teachers, from the findings, 15 (100%) of the principals reported that students use text books in their respective schools, further 199 (97.03%) of the students reported that they use text books in their respective schools. Refer to Table 4.10.

**Table 4. 10 Textbook usage**

Response	F/P	students	Principals
Yes	Frequency	199	15
	Percentage	97.03%	100%
No	Frequency	6	0
	Percentage	3%	0%

**4.5.2 Duration of Replacement**

The study sought to establish the duration that it took before exercise books were replaced to students when they were filled up. The question was addressed to students and principals, from the findings 98.04% of the students indicated that books were replaced immediately, 1.95% of them reported that books were replaced after one day. 93.33% of the principals reported that books were replaced immediately while 6.66% of the principals reported that books were replaced after one day. Refer to Table 4.11.

**Table 4. 11 Duration of Replacement**

Duration of replacement	F/P	students	Principals
Immediately	frequency	201	14
	percentage	98.04%	93.33%
One day	frequency	4	1
	percentage	1.95%	6.66%

**4.5.3 Provision of Textbooks for the Pupils**

Further the study sought to establish the source of text books for the students, the Question was addressed to the principals, from the findings, 73.33% of the principals reported that schools provided the text books, 6.67% of them reported that parents purchased the text books, 20.00% of the principals reported that books were provided to the students from donations. Refer to Table 4.12 below;

**Table 4.12 Provision of text books**

Provision of text books	frequency	Percentage
Schools	11	73.33
parents purchase	1	6.67
parents pay	0	0
Donations	3	20.00
Others	0	0
<b>Total</b>	<b>15</b>	<b>100</b>

**4.5.4 Source of Textbooks for Teachers**

Table 4.13 shows the data collected on the sources of text books for the teachers, the Question was addressed to teachers, from the findings, 93.55% of teachers reported that they source the books they used for teaching from the school, 6.45% of them reported that they buy their own. By implications majority of the teachers received books from their respective schools.

**Table 4.13 Source of text books for teachers**

Source of text book for the teachers	frequency	Percentage
From the school	29	93.55
you buy your own	2	6.45
Any other source	0	0
<b>TOTAL</b>	<b>31</b>	<b>100</b>

**4.5.5 Adequacy of Textbooks per Class**

The study sought to establish the adequacy of text books per classes taught by the teachers, the Question was addressed to the teachers. From the findings 61.29% of the teachers indicated that they taught one class and the texts were adequate, 16.13% of them reported teaching one class and books were inadequate.64.52% of them indicated that they taught two classes and text books were adequate, 12.90% of them indicated that they teach two classes and books were inadequate. 64.52% indicated that they taught three classes and the books were adequate, 16.13% of them reported they teach three classes and the books were inadequate.70.97% of them reported that they taught four classes and the text books were

adequate, 6.45% of them reported they teach four classes and the books were inadequate. Refer to Table 4.14 below;

**Table 4. 14 Adequacy of text books per class**

classes	Adequate				Inadequate			
	Yes		no		yes		No	
	F	%	F	%	F	%	F	%
1	19	61.29	12	38.71	5	16.13	26	83.87
2	20	64.52	11	35.48	4	12.90	27	87.10
3	20	64.52	11	35.48	5	16.13	26	83.87
4	22	70.97	9	29.03	2	6.45	29	93.55

#### 4.6 Institutional Facilities

Objective three of the study was to establish the influence of institutional facilities on the students' Performance in K.C.S.E. the findings of the study were as indicated in the section below;

##### 4.6.1 Availability of Institutional Facilities

The study sought to establish from the respondents on the availability of the institutional facilities, the question was addressed to teachers, principals and students, from the findings, 12% of the respondents reported that computers were very adequate, 9% reported that computers were adequate while 79% reported that computers were inadequate.8% of the respondents reported that computer labs were very adequate, 12% adequate while 78% reported that the computer labs were inadequate. 18% of the respondents reported that library were very adequate, 33% reported that they were adequate while 47% reported that library were inadequate.21% of the respondents reported that laboratory were very adequate,56% reported that they were adequate while 22% reported that they were inadequate. 12% of the respondents reported that classrooms were very adequate, 81% reported that they were adequate while 6% reported that they were inadequate. Finally 8% of the respondents reported other services being adequate while 70% reported that these other services were very inadequate. Refer to Table 4.15 bellow.

**Table 4.15 Availability of institutional facilities**

	Very adequate				adequate				Inadequate			
	yes		no		yes		no		yes		No	
Facilities	F	%	F	%	F	%	F	%	F	%	F	%
Computers	29	12	222	88	22	9	229	91	198	79	53	21
Computer lab	19	8	232	92	29	12	222	88	196	78	55	22
Library	45	18	206	82	84	33	167	67	119	47	132	53
Laboratory	52	21	199	79	141	56	110	44	55	22	196	78
Classrooms	31	12	220	88	203	81	48	19	15	6	236	94
Others	0	0	251	100	20	8	231	92	176	70	75	30

**4.6.2 Frequency of Utilization of Facilities**

Table 4.16 shows the data collected on the frequency of the utilization of the facilities, from the data collected, 29% of the respondents reported that computers are used once, 27% reported often, while 42% reported that computers have not all been utilized. 29% of the respondents reported that computer lab has been utilised once, 25% reported often while 42% reported not all. On utilization of library 24% reported once, 55% often while 20% reported not all. On utilization of laboratory 14% reported one, 76% often while 7 reported not at all. From the findings majority of the respondents reported that the schools facilities have often been utilized.

**Table 4.16 Frequency of Utilization of Facilities**

	Once				Often				not at all			
	Yes		No		yes		no		yes		No	
Facilities	F	%	F	%	F	%	F	%	F	%	F	%
Computers	72	29	179	71	68	27	183	73	105	42	146	58
Computer lab	74	29	177	71	64	25	187	75	106	42	145	58
Library	59	24	192	76	138	55	113	45	51	20	200	80
Laboratory	35	14	216	86	191	76	60	24	17	7	234	93
Others	0	0	251	100	0	0	251	100	0	0	251	100

### 4.6.3 Teacher Student Ratio

Table 4.17 shows the data collected on teacher student ratio. The study sought to establish the teacher student ratio from the teacher respondents, from the findings majority 64.52% of the respondents indicated that the teacher student ratio in their school is 1:45, 25.81% of them indicated that the ratio is 1:25 while 9.68% of them reported other ratios.

**Table 4. 17 Teacher student ratio**

<b>teacher-student ratio</b>	<b>frequency</b>	<b>Percentage</b>
01:25	8	25.81
01:45	20	64.52
1:65	0	0
Others	3	9.68
<b>TOTAL</b>	<b>31</b>	<b>100.00</b>

### 4.7 Students Socio-economic Background

Objective four of the study was to establish the influence of socio economic background on the students' K.C.S.E Performance. The findings of the study were as indicated in the section below.

#### 4.7. 1 Parents Level of Education

The study sought to establish the level of education of the parents from the students, from the findings, 34.15% of the respondents reported that their parents have O'level qualifications, 28.29% of them indicated that their parents have standard eight qualifications. 16.59% of the respondents reported that their parents have Diploma qualifications, 7.80% of the students indicated that their parents do not possess any academic qualifications, 6.34% of the respondents reported that their parents possess Degree qualifications, 5.37% of the respondents reported that their parents possess Masters degree qualifications while 1.46% of the respondents reported that their parents possess Higher diploma Qualifications. From the findings majority of the students' parents have O' level Qualifications. Refer to Table 4.18 below.

**Table 4. 18 Parents level of education**

<b>Parents level of education</b>	<b>frequency</b>	<b>Percentage</b>
None	16	7.80
Standard Eight	58	28.29
O level	70	34.15
Diploma	34	16.59
Higher Diploma	3	1.46
Degree	13	6.34
Masters degree	11	5.37
Others	0	0
<b>TOTAL</b>	<b>205</b>	<b>100.00</b>

**4.7.2 Fees Payment**

Table 4.19 shows the data collected, the study sought to establish from the students respondents on who was responsible on their school fees payments, from the findings, majority 50.24% of the students reported that their school fees were being paid by their fathers, 37.56% of the students reported that their school fees were being paid by their mothers while 12.20% of them reported that their school fees were being paid by guardian/donor. By implications majority of the students were paid school fees by their Fathers.

**Table 4. 19 Fees payment**

<b>Fees payment</b>	<b>Frequency</b>	<b>Percentage</b>
Father	103	50.24
Mother	77	37.56
Guardian/Donor	25	12.20
<b>Total</b>	<b>205</b>	<b>100</b>

**4.7.3 Timely Payment of School Fees**

Table 4.20 shows the data collected on the timely fees payment. The study sought to establish from the students on whether their schools was timely paid, from the findings, majority 57.56% of the respondents reported that their school fees was paid on time, 42.43% of them reported that school fees was not paid in time.

**Table 4. 20 Response on timely fees payment**

<b>Response</b>	<b>Frequency</b>	<b>percentage</b>
Yes	118	57.56
No	87	42.43
<b>Total</b>	<b>205</b>	<b>100</b>

**4.7.4 Parental Level of Participation in School Activities**

Further the study sought to establish the degree of parents participation in school activities. From the data collected, majority of the respondents reported that often parents participate in Discussion of their academic performance as was shown by a mean score of 3.60. Other respondents reported that parents sometimes participate in PTA meeting as shown by a mean score of 3.47. Others reported that parents sometimes participate in meetings regarding student as shown by a mean score of 3.05. Equally, others reported that sometimes parents participate in open day activities as shown by a mean score of 2.94. Refer to Table 4.21 below.

**Table 4. 21 Parents level of participation**

<b>Activity</b>	<b>Mean</b>	<b>STDev</b>
Discussion of academic performance of the student	3.60	1.098
Meetings regarding students	3.05	1.908
Open day activities	2.94	0.905
PTA meetings	3.47	1.234

**4.7.5 Parental Commendations**

The study sought to establish from the students whether they receive parental commendation on their academic performance, from the findings majority 91.70% of the students reported that they receive parental commendations, 8.29% of them reported that they did not receive commendations from their parental. Refer to Table 4.22 below.

**Table 4. 22 Parental Commendations**

<b>Response</b>	<b>frequency</b>	<b>percentage</b>
Yes	188	91.70
No	17	8.29
<b>Total</b>	<b>205</b>	<b>100</b>

#### **4.7.6 Parental Role on Students' Academic Mentorship**

Further the study sought to establish from the students whether their parents were their academic role models, from the findings majority 92.68% of the respondents reported that their parents were their role models in academic performance, 7.31% of them reported their parents were not their academic role models. Refer to Table 4.23 below.

**Table 4. 23 Response on parental role on Students' academic mentorship**

<b>Response</b>	<b>frequency</b>	<b>percentage</b>
Yes	190	92.68
No	15	7.31
<b>Total</b>	<b>205</b>	<b>100</b>

#### **4.8 School Environmental Factors**

Objective four of the study was to establish the influence of schools' environmental factors on the students' K.C.S.E Performance. The findings of the study were as indicated in the section below;

##### **4.8.1 Distance from Home to School**

Table 4.24 shows the data collected on the distance from home to school. The study sought to establish from the students the distance from home to school. From the findings, majority 50.24% of the respondents reported that distance from home to school was between (0-5km). 42.44% of the respondents reported that the distance from home to school was (6-10km) while 7.32% of the respondents reported that the distance home to school was 11km and above.

**Table 4. 24 Distance from home to school**

<b>Distance from home to school</b>	<b>frequency</b>	<b>Percentage</b>
0-5km	103	50.24
6-10km	87	42.44
11km and above	15	7.32
<b>TOTAL</b>	<b>205</b>	<b>100</b>

**4.8.2 Mode of Transport**

Further the study sought to establish the mode of transport used by the students to school, from the findings, majority 79.51% of the students walk from home to school, 20.49% of the respondents reported that they use vehicles, the findings reveal that majority of the students walk from home to school. Refer to Table 4.25 below.

**Table 4. 25 Mode of transport**

<b>Mode of transport</b>	<b>frequency</b>	<b>Percentage</b>
Walking	163	79.51
Vehicles	42	20.49
<b>TOTAL</b>	<b>205</b>	<b>100.00</b>

**4.8.3 Distance from School to the Road**

The study sought to establish from the students on the distance from school to the road, from the data collected, majority 80.49% of the respondents reported that the distance from the school to the road is (0-2km), 15.12% of the respondents reported that distance from school to road is (3-5km), 4.39% of the respondents reported that the distance from school to the road was between (6-10km).refer to Table 4.26 below.

**Table 4. 26 Distance from school to the road**

<b>Distance from School to road</b>	<b>frequency</b>	<b>Percentage</b>
0-2km	165	80.49
3-5km	31	15.12
6-10km	9	4.39
<b>TOTAL</b>	<b>205</b>	<b>100.00</b>

**4.8.4 Effects of Traffic Noise on Class Concentration**

The study sought to investigate the effects of traffic noise on class concentration. From the findings, majority 66.34% of the respondents indicated that traffic noise affects their

concentration, while 33.66% of the respondents reported that traffic noise does not affect there concentrations. Refer to Table 4.27 below.

**Table 4. 27 Response on the effects of traffic noise on Concentration**

<b>Effects of traffic noise on concentration</b>	<b>frequency</b>	<b>Percentage</b>
Yes	136	66.34
No	69	33.66
<b>TOTAL</b>	<b>205</b>	<b>100.00</b>

#### **4.8.5 Distance from Market to School**

Further the study sought to establish from the students, the distance from market to school, from the findings, 65.37% of the respondents reported that the distance from market to school was (6-10km), 25.85% of the respondents reported that the distance from market to school was (0-5km), 5.37% of the respondents reported that the distance from market to school was (11-15km) while 3.41% of the respondents reported that the distance from market to school was between (16-20km).Refer to Table 4.28 below.

**Table 4. 28 Distance from Market to school**

<b>Distance from school to the market</b>	<b>frequency</b>	<b>Percentage</b>
0-5km	53	25.85
6-10km	134	65.37
11-15km	11	5.37
16-20km	7	3.41
<b>TOTAL</b>	<b>205</b>	<b>100.00</b>

#### **4.9 School Performance**

The study sought to investigate on the school performance, from the previous three years. From the findings, 60% of the principals reported that their schools had gained a mean score of between (0.1-4.0) in 2010. 66.7% of the principals reported that their schools had attained a mean score of between (0.1-4.0) in the year 2011, while 60% of the principal reported a mean score of between (0.1-4.0) in the year 2012. 40% of the principal reported that their schools attained a mean score of between (4.1-5.0) in 2010. None of pure day schools had attained a mean score of (5.1-6.0) for the last three years. Refer to Table 4.29 below.

**Table 4. 29 School performance**

	year 2010				year 2011				year 2012			
	yes		no		yes		no		yes		no	
Mean score	F	%	F	%	F	%	F	%	F	%	F	%
0.1-4.0	9	60	6	40	10	66.7	5	33.3	9	60	6	40
4.1-5.0	6	40	9	60	5	33.3	10	66.7	6	40	9	60
5.1-6.0	0	0	15	0	0	0	15	100	0	0	15	100

**4.9.1 Distance on Performance**

Further the study sought to establish from the principals on whether the distance from home to school does have effects on the performance, from the findings majority 53% of them reported that distance from home to school does affects the performance of students while 47% of them did not agree that distance from home to school does affect the performance of students.

**4.9.2 Proximity to the Market on Performance**

On the proximity to the market on performance, 53% of the principals reported that proximity to the market does affect the performance of students, while 47% of the principals do not agree that proximity to the market does affect performance.

**4.10 Inferential Analysis**

The section below presents coefficient of correlation, coefficient of determination, ANOVA and regression coefficient. Coefficient of correlation shows the relationship between the dependent variable and the independent variables, coefficient of determination shows the contribution of independent variables to the dependent variable, ANOVA tests the significance of the regression model while the regression coefficient shows the effect of unit increase of independent variables to the dependent variables.

**4.10.1 Coefficient of Correlation**

To compute the correlation (strength) between the study variables and their findings the study used the Karl Pearson's coefficient of correlation (r). The findings as shown in Table 4.30 below revealed that there was a positive correlation between academic performance and School Administration as shown by a correlation figure of 0.557. Even though the correlation

is positive, the relationship between academic performance and School Administration is not significant.

There is a positive correlation between academic performance and learning resources as shown by a correlation figure of 0.532. Even though the correlation is positive, the relationship between academic performance and learning resources is not significant.

It was also clear that there was a positive correlation between academic performance and institutional facilities with a correlation figure of 0.512. Although the correlation is positive, the relationship between academic performance and institutional facilities is not significant.

It was also revealed that there was a positive correlation between academic performance and socio-economic background with a correlation figure of 0.52. Even though the correlation is positive, the relationship between academic performance and socio-economic factors is not significant.

Finally, a positive correlation between academic performance and Schools environmental factors, with a correlation value of 0.538 was realized. Even though the correlation is positive, the relationship between academic performance and Schools environmental factors is not significant.

This shows that there was a moderate correlation between academic performance and School Administration, learning resources, institutional facilities, socio-economic background and Schools environmental factors. The lack of significance in the individual relationships could be due to interactive effects with the other variables.

**Table 4.30 Coefficient of Correlation**

		Academic Performance	Hours spent online	Gender	Location setting	Subject	Learning Resources
<b>Academic Performance</b>	Pearson Correlation Sig. (2-tailed)	1					
<b>School Administration</b>	Pearson Correlation Sig. (2-tailed)	0.557	1				
<b>Institutional facilities</b>	Pearson Correlation Sig. (2-tailed)	0.3079	.320	1			
<b>Socio economic factors</b>	Pearson Correlation Sig. (2-tailed)	0.512	0.1855	0.0194	1		
<b>environmental factors</b>	Pearson Correlation Sig. (2-tailed)	0.520	0.1857	0.1846	0.1107	1	
<b>Learning Resources</b>	Pearson Correlation	0.0023	0.1857	0.4300	0.2335	0.1027	1
		0.538	0.0072	0.2335	0.1027	1	
		0.0422	0.9591	0.0925	0.4642		
		0.532	0.0043	0.248	0.1112	0.147	1

#### 4.10.2 Correlation of Determination

Coefficient of determination explains the extent to which changes in the dependent variable can be explained by the change in the independent variables or the percentage of variation in the dependent variable (academic performance) that is explained by all the five independent variables (School Administration, institutional facilities, socio-economic background, Schools environmental factors and learning resources).

From the findings, 54.5 percent academic performance is attributed to combination of the five independent factors (School Administration, institutional facilities, socio-economic background, Schools environmental factors and learning resources.) investigated in this study. A further 45.5 percent academic performance is attributed to other factors not investigated in this study. Therefore, there is a dare need for further research that should be conducted to investigate the other factors (45.5 percent) that contribute to the academic performance. Refer to Table 4.31 below.

**Table 4. 31 Model Summary**

Model	R	R Square	Adjusted Square	R Std. Error of the Estimate
1	0.738	0.545	0.214	0.160

**4.10.3 ANOVA**

In trying to establish significance of the model the study employed ANOVA. From Table 4.32 below, the significance value is 0.009 which is less than 0.05 thus the model is statistically significant in predicting School Administration, institutional facilities, socio-economic background, Schools environmental factors and learning resources impact to academic performance in public secondary school. The F critical at 5 percent level of significance was 2.70. Since F calculated is greater than the F critical (value = 9.793), this shows that the overall model was significant.

**Table 4. 32 ANOVA**

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	12.624	4	3.156	9.793	.009
	Residual	30.616	95	.322		
	Total	43.240	99			

**4.10.4 Regression Coefficient**

Multiple regression analysis was conducted as to determine the relationship between academic performance and the five variables.

As per the SPSS generated table 4.4 the equation:

$(Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3+ \beta_4X_4+ \beta_5X_5 + \varepsilon)$  becomes:

$$Y= 1.180+ 0.0498 + 0.017 X_2+ 0.3209 X_3+0.2527 X_4 +0.2681 X_5$$

The regression equation above has established that taking all factors into account (School administration, learning resources, institutional facilities, socio-economic background and Schools environmental factors) constant at zero, academic performance will be 1.180. The findings presented also shows that taking all other independent variables at zero, a unit

increase in School Administration will lead to a 0.0498 increase in academic performance; a unit increase in institutional facilities will lead to a 0.017 increase in academic performance; a unit increase in socio-economic background will lead to a 0.3209 increase in academic performance ; a unit increase in Schools environmental factors will lead to a 0.2527 increase in academic performance and a unit increase in learning resources will lead to a 0.2681 increase in academic performance. This infers that socio-economic background contribute most to academic performance followed by Schools environmental factors then institutional facilities contributed the least to academic performance. Refer to Table 4.33 below.

**Table 4.33: Regression Coefficients**

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	1.180	0.3303		0.5449	0.5881
socio-economic background	0.541	0.1530	0.0498	0.3731	0.0201
Schools physical and environmental factors	0.507	0.1658	0.0170	0.1210	0.0262
institutional facilities	0.518	0.1502	0.3209	2.4461	0.0252
School administration	0.528	0.1398	0.2527	1.9406	0.0223
Learning & Teaching Resources	0.521	0.143	0.2681	1.461	0.0211

**CHAPTER FIVE**  
**SUMMARY OF FINDINGS, DISCUSSIONS, CONCLUSION AND**  
**RECOMMENDATIONS**

**5.1 Introduction**

This chapter presents the summary, discussions, conclusions and recommendations of the study findings from the questionnaires which were administered to the principals, teachers and students. The chapter discusses the findings in relation to the literature review and the objectives identified for the study. The recommendations drawn were based on the outcomes of the study.

**5.2 Summary of the Findings**

**5.2.1 School Administration and Students Performance in K.C.S.E.**

The study revealed that school administration have influence on the performance of the students, the study revealed that all the principals had attended refresher course on the school administration, it was revealed that training acquired by the school principals had helped them to perform better in their roles as the school principals. The study revealed that majority of the principals had served for more than three years in their respective schools.

**5.2.2 Learning Resources and Students Performance in K.C.S.E.**

The study revealed that learning resources had an influence on the performance of the students; the study revealed that students used text books in their respective schools; it was revealed that students' books were replaced immediately. On the provision of books the study revealed that most of the text books used by the students were provided by the school, other sources of these text books included donations and some parents equally bought text books for the students. Further the study revealed that schools provided text books for teachers to deliver lessons though a few of the teachers bought their own text books. On adequacy of the text books per class it was revealed that most of the teachers taught more than two classes and the text books provisions was not adequate.

**5.2.3 Institutional Facilities and Students Performance in K.C.S.E.**

The findings of the study revealed that institutional factors had influence on the performance of the students; the study revealed that computers were adequate in most of the schools, likewise computer lab, library, laboratory and classrooms were adequate. Further it was revealed that library, computer lab, computer were often utilised by the schools. On teacher student ratio it was revealed that in most schools teacher student ratio was 1:45.

#### **5.2.4 Socio-economic Background and Students Performance in K.C.S.E.**

The study revealed that socio-economic background of the students had a direct influence on their academic performance; the study revealed that majority of the parents had O' level qualifications, others had standard eight qualifications, diploma qualifications, degree qualifications, Masters Qualifications while others did not possess any academic qualifications. Further it was revealed that majority of the students school fees were paid by their fathers, others were paid school fees by their mothers, while others received school fees from their guardians. Further majority of the students paid their school fees on time. The study established that majority of the parents participated more often on school activities such as discussion of academic performance of the school, PTA meetings, meetings regarding students and open day activities. Most parents recommended students on good performance, equally majority of the parents participated in academic mentorship of the students.

#### **5.2.5 School Environmental Surrounding and Students Performance in K.C.S.E.**

The study revealed that school environmental factors contributed in influencing academic performance of the students, it was revealed that distance from home to school contributed in influencing performance among the students, majority of the students walked to school others used vehicles, the study revealed that distance from school to the road was averagely between (0-2km) for most of the schools, the study established that there were some significant relationship between distance to the road and the performance of students. Further the study revealed that traffic affected class concentration among the students. The study revealed that averagely distance from market to school was between (6-10km), the findings reveals that there are some correlation between distance from market to school and performance of students.

### **5.3 Discussions of the Findings**

The findings of the study answered the research questions since the influence of school administration, learning and teaching resources, institutional facilities, socio economic background and school physical and environmental surrounding factors have been quantified by descriptive statistics. The discussion and related literature were presented for each of the five variables of the study.

#### **5.3.1 School Administration and Students Performance in K.C.S.E.**

The study revealed that school administration have influence on the performance of the students, the study revealed that all the principals had attended refresher course on the school administration, it was revealed that training acquired by the school principals had helped them to perform better in their roles as the school principals. The study revealed that majority

of the principals had served for more than three years in their respective schools, hence the findings concurs with Otieno (2011b) who found that management styles had influence in academic performance. The findings are also supported by Efeza(2011b) whose study on factors influencing academic performance in Primary schools in urban slums in Kenya found that School administration is a crucial element which determines school's academic performance, these findings are again asserted by Gachau (2011) Study on effects of Principal's Leadership styles on academic performance in Secondary schools in Imenti North district which revealed that leadership style influences the educational process in producing academic achievement.

### **5.3.2 Learning Resources and Students Performance in K.C.S.E.**

The study revealed that learning resources had an influence on the performance of the students; the study revealed that students used text books in their respective schools; it was revealed that students' books were replaced immediately. On the provision of books the study revealed that most of the text books used by the students were provided by the school, other sources of these text books included donations and some parents equally bought text books for the students. Further the study revealed that schools provided text books for teachers to deliver lessons though a few of the teachers bought their own text books. On adequacy of the text books per class it was revealed that most of the teachers taught more than two classes and the text books provisions was not adequate.

These findings are in agreement with Otieno (2011c) who observed that unavailability and inadequacy of instructional materials and resources influenced academic performance of students in public secondary schools, where those schools which lacked adequate instructional materials and resources such as text books, exercise books among others performed poorly in national examination; while those with adequate instructional resources performed tremendously well in national examinations. The findings are also in line with Mucira (2011a) study which revealed that schools with adequate teaching and learning resources performed well in national examination compared to those with inadequate or without teaching and learning resources, while UNESCO (2008) report on global monitoring, United Kingdom is in agreement that increased availability and use of text books improve the students learning particularly to low income setting.

### **5.3.3 Institutional Facilities and Students Performance in K.C.S.E.**

The findings of the study revealed that institutional factors had influence on the performance of the students; the study revealed that computers were adequate in most of the schools, likewise computer lab, library, laboratory and classrooms were adequate. Further it was

revealed that library, computer lab, computer were often utilised by the schools. On teacher student ratio it was revealed that in most schools teacher student ratio was 1:45. This study findings are in line with Mwangi (2012) study on determinants of academic performance in Kenya Certificate of Secondary Education in Public secondary schools in Kiambu West District which found that majority of schools that is 55.6% did not have equipped laboratories and libraries, where such facilities were found they were not adequately used hence these was reflected in these schools' poor performance in National examinations. The findings are also backed by Efeza (2011a) study on factors influencing academic performance in Primary schools in urban slums in Kenya which concluded that School infrastructure does influence academic performance; however, he observed that good infrastructure does not guarantee improved performance as long as other factors that influence academic performance are not addressed.

#### **5.3.4 Socio-economic Background and Students Performance in K.C.S.E.**

The study revealed that socio-economic background of the students had a direct influence on their academic performance; the study revealed that majority of the parents had O' level qualifications, others had standard eight qualifications, diploma qualifications, degree qualifications, Masters Qualifications while others did not possess any academic qualifications. Further it was revealed that majority of the students school fees were paid by their fathers, others were paid school fees by their mothers, while other received school fees from their guardians. Further majority of the students paid their school fees on time. The study established that majority of the parents participated more often on school activities such as discussion of academic performance of the school, PTA meetings, meetings regarding students and open day activities. Most parents recommended students on good performance, equally majority of the parents participated in academic mentorship of the students.

The study findings are in agreement with Otieno (2011a) Study on factors influencing academic performance of students in public secondary schools in Teso South District, Western Province which found that parental involvement in students school work and other school programs was very key in influencing positive academic performance in students. In support of these findings is a study by Hinnun and Park (2004) who determined that there was a positive correlation between the presence of reading materials at home and performance in rural China. Also the study findings are backed by Miya (2011) study on influence of home environment on academic performance of day secondary school students in Muhoroni District, Kisumu county which revealed that Family socio economic status influences academic performance of students likewise parent's levels of education, in that

educated parents motivated their children to work hard as they know the importance of education, hence acting as role models to their children and providing the necessary resources for their children to improve their performance. Mutuaruchiu (2011) study on influence of parental characteristics on K.C.S.E performance in public day schools in Abothuguchi, central division, Imenti central district, Kenya which found that parents who were involved in their children's academic activities motivated their children in performing highly in national examination backs this study findings. Also in agreement with the study findings is Ozturk (2001) study done in U.S.A on personal and social factors that influence and advanced mathematics course taking in high school in Virginia, which found that parent involvement highly influenced academic performance of their children as well as course taking.

### **5.3.5 School Environmental Surrounding and Students Performance in K.C.S.E.**

The study revealed that school environmental factors contributed in influencing academic performance of the students, it was revealed that distance from home to school contributed in influencing performance among the students, majority of the students walked to school others used vehicles, the study revealed that distance from school to the road was averagely between (0-2km) for most of the schools, the study established that there were some significant relationship between distance to the road and the performance of students. Further the study revealed that traffic affected class concentration among the students. The study revealed that averagely distance from market to school was between (6-10km), the findings reveals that there are some correlation between distance from market to school and performance of students. The study findings are in line with a reports by African Almanac (2004) and studies by Holsinger, Jacob and Migimu (2002) Chediel, Sekwao and Kirumba (2000) and Oloo (2003), which revealed that the majority of day secondary schools continued to perform poorly in the national examinations compared to boarding secondary schools.

### **5.3.6 School Performance**

The study revealed that school performance was influenced by the factors that the study had investigated The findings established that from the previous year's many schools had gained a mean score of between (0.1-4.0). Majority of the Principals reported that distance from home to school does affects the performance of student. Further, majority of the principal's reported that proximity to the market does affect the performance of students.

## **5.4 Conclusion of the Study**

The study was carried out to establish factors influencing students' performance in KCSE in public day secondary schools in Kikuyu Sub County of Kiambu County. The study sought to answer five research questions; How does school administration influence the performance of

students in KCSE in Public Day Secondary Schools? How Do Learning Resources influence the Performance of Students in KCSE in Public Day Secondary Schools? How do the institutional facilities influence the performance of students in KCSE in Public Day Secondary Schools? To what extent does a student's socio-economic background influence the school's performance in KCSE in a Public Day Secondary Schools? To what extent does a School's Environmental surrounding influence students performance in KCSE in Public Day Secondary schools?

The study concludes that school administrations have influence on the performance of the students, that students used text books in their respective schools; the study concludes that students' books were replaced immediately. On the provision of books the study concludes that most of the text books used by the students were provided by the school, other sources of these text books included donations and some parents equally bought text books for the students. The study concludes that computers were adequate in most of the schools, likewise computer lab, laboratory and classrooms were adequate. Further the study concludes that library, computer lab, computer were often utilised by the schools.

On socio- economic background, the study concludes that majority of the parents had O' level qualifications, others had standard eight qualifications, diploma qualifications, degree qualifications, Masters Qualifications while others did not posses any academic qualifications.

Further the study concludes that school environmental factors contribute in influencing academic performance of the students. The study concludes that distance from home to school contributes in influencing performance among the students; majority of the students walked to school others used vehicles, the study that there were some significant relationship between distance to the road and the performance of students. Further the study concludes that traffic noise affects class concentration among the students. There are some correlation between distance from market to school and performance of students.

### **5.5 Recommendations of the Study**

It is evident that school administration, learning resources, institutional facilities, socio-economic background and school environmental factors influences students' performance in KCSE in public day schools. The study found out that all the identified factors do influence performance in one way or the other as discussed in this report. Following the findings of this study;

- i. The researcher recommends that training for school principals should be enhanced to boost their skills in line with their managerial role.

- ii. The study recommends that learning resources should be provided adequately to promote performance among the students which will eventually boost on their performance.
- iii. Further the study recommends that institutional facilities such as the computers, computer labs, library, laboratory, classrooms and other facilities should be provided in sufficiency. This will boost the learning conditions among the learners and boost their performance academically. It's recommended that school administration should reinforce further on the utilization of these facilities.

### **5.6 Suggestions for Further Studies**

The study was based on factors influencing students' performance in KCSE in public day secondary schools in Kikuyu Sub County of Kiambu County.

The researcher suggests that similar study be carried out in different locations of different ecological zones to establish the determinants of academic performance for comparison purposes.

1. The researcher further suggests that further studies involving single gender should also be carried out to reduce the chances of being subjective on the findings.
2. Further still, the study recommends research on other factors that do influence academic performance in public day secondary schools other than the ones undertaken by this study.

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## **APPENDICES**

### **Appendix1:Introduction Letter**

**Dear Respondents,**

**REF: THE FACTORS INFLUENCING PERFORMANCE IN KENYA CERTIFICATE OF SECONDARY EDUCATION (K.C.S.E.) EXAMINATION IN PUBLIC DAY SECONDARY SCHOOLS IN KIKUYU SUB COUNTY, KIAMBU COUNTY.**

My name is Gitonga David Mwaniki and I am pursuing a Masters in Arts at University of Nairobi. The attached questionnaire is aimed at investigating the factors influencing performance in KCSE Examination in public day secondary schools in Kikuyu sub county. You have been selected for the purpose of the study. Please take time to complete the questionnaire. Your genuine response will be appreciated. High level of confidentiality will be assured. The information obtained will be used purely for academic purposes.

Thank you all in advance

Yours sincerely

**David Mwaniki Gitonga**

## Appendix II: Research Questionnaire for Principals

This questionnaire seeks to gather information concerning factors influencing students performance in rKCSE in Public Day Secondary schools in Kikuyu Sub County, Kiambu County. You have been selected for the purpose of the study. Please take time to complete the questionnaire. Your genuine responses will be appreciated. High level of confidentiality will be assured. The information obtained will be used purely for academic purposes.

### PART A: Demographic data

1. What is your gender?

Male

Female

2. What is your age bracket?

(i) 25 – 30 yrs

(ii) 31 – 35 yrs

(iii) 36 – 45 yrs

(iv) 46 yrs and above

3. What is your highest academic qualification?

(i) Diploma

(ii) Bachelors Degree

(iii) Masters Degree

(iv) Any other (please specify) \_\_\_\_\_

4. Teaching experience in years

(i) 0 – 5 yrs

(ii) 6 – 10 yrs

(iii) 11 – 15 yrs

(iv) 16 – 20 yrs

(v) 21 yrs and above

5. What is your area of specialization?
- (i) Science subjects
  - (ii) Art subjects
  - (iii) Mathematics
  - (iv) Languages
  - (v) Technical subjects

**PART B: School Administration**

- 6 (a) Have you attended a refresher course on school administration?

Yes

No

- (b) Has the training helped you to perform better in your role as a principal?

Yes

No.

- 7 How long have you served as a school principal?

a. One year

b. Two years

c. Three years

d. Others (Please specify) \_\_\_\_\_

**PART C: Learning Resources**

The following are questions about the availability of learning resource in your school. Please respond to each question by ticking (✓) against the appropriate information regarding the resources or writing a short statement.

- 8 (a) Do the students in your school use any text books?

Yes

No.

- (b) When a student fills up an exercise book, how long does it take for him/her to be issued with a new one? \_\_\_\_\_

(c) Who provides textbooks for the students?

- a. The school
  - b. Parents purchase for their children
  - c. Parents pay text books fees to the school
  - d. Donation from well wishers
  - e. Others (please specify) \_\_\_\_\_
- 

**PART D: Institutional Facilities**

9 (a) Below is a list of institutional facilities necessary for effective learning. What extent are they available in your school?

Facilities	Very adequate	Adequate	Inadequate
Computers			
Computer lab			
Library			
Laboratory			
Classrooms			
Others (please specify) _____			
_____			
_____			

9 (b) How often do the student utilize the following facilities?

Facilities	Ones	Often	Not at all
Computers			
Computer lab			
Library			
Laboratory			
Others (please specify)	_____		
	_____		
	_____		

**PART E: SCHOOL ENVIRONMENTAL FACTORS**

10. Has the Distance covered by the students in your school affected their Academic Performance? Explain

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

11. a) How far is your school from the road?

\_\_\_\_\_

\_\_\_\_\_

b) i) Does the traffic on the road affect the students' concentration in class?

Yes

No.

ii) If your answer is yes above, then explain briefly

\_\_\_\_\_

\_\_\_\_\_

12. a) Does the traffic noise affect your teaching time?

Yes

No.

b) If the answer is yes above, Can you estimate the time lost in relation to you subject in a term?

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13. How far is your school from a Market Centre/Town?

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14. Has proximity to the Market centre/ Town affected your students, Performance?

Explain Briefly

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**PART F: School performance**

15. (a) Please indicate on the table below, the mean standard score and the position of your school in KCSE Examination in the last three years.

Year	Mean standard score	Position in District
2010		
2011		
2012		

(b) In your opinion, what factors have contributed to this kind of performance in the school?

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**Thank you for your time and co-operation**

### Appendix III: Research Questionnaire for Teachers

This questionnaire seeks to gather information concerning factors influencing students performance of KCSE in Public Day Secondary schools in Kikuyu Sub County, Kiambu County. You have been selected for the purpose of the study. Your genuine responses will be appreciated. High level of confidentiality will be assured. The information obtained will be used purely for academic purposes.

#### PART A: Demographic data

1. What is your gender?

Male

Female

2. What is your age bracket?

(i) 25 – 30 yrs

(ii) 31 – 35 yrs

(iii) 36 – 45 yrs

(iv) 46 yrs and above

3. What is your highest academic qualification?

(i) Diploma

(ii) Bachelors Degree

(iii) Masters Degree

(iv) Any other (please specify) \_\_\_\_\_  
\_\_\_\_\_

4. Teaching experience in years

(i) 0 – 5 yrs

(ii) 6 – 10 yrs

(iii) 11 – 15 yrs

(iv) 16 – 20 yrs

(v) 21 yrs and above

5. What is your area of specialization (professional training)?

(i) Science subjects

(ii) Art subjects

- (iii) Mathematics
- (iv) Languages
- (v) Technical subjects

**PART B: Learning Resources**

The following are questions about the availability of learning resources in your school. Please respond to each question by ticking (√) against the appropriate information regarding the resources or writing a short statement.

6. (a) Where do you acquire the text books necessary for you to teach?

- (i) From the school
- (ii) You buy your own
- (iii) Any other source \_\_\_\_\_  
\_\_\_\_\_

(b) Indicate the classes you teach, the extent to which the issue of text books to students is adequate.

Classes	Adequate	Inadequate
1.		
2.		
3.		
4.		

**PART C: Institutional Facilities**

7. Below is a list of institutional facilities necessary for effective learning. To what extent are they available in your school?

Facilities	Very adequate	Adequate	Inadequate
Computers			
Computer lab			
Library			
Laboratory			
Classrooms			
Others (please specify)	_____		
	_____		

(b) How often do the students utilize the facilities?

Facilities	Ones	Often	Not at all
Computers			
Computer lab			
Library			
Laboratory			
Others (please specify)	_____		
	_____		

(c) What is the teacher-student ratio per class?

(i) 1:25

- (ii) 1:45
- (iii) 1:65
- (iv) Others (please specify) \_\_\_\_\_

**PART D: SCHOOL ENVIRONMENTAL FACTORS**

8. Has the Distance covered by the students in your school affected their Academic Performance? Explain

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9. a) How far is your school from the road?

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b) i) Does the traffic on the road affect the students' concentration in class?

Yes

No.

ii) If your answer is yes above, then explain briefly

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10. a) Does the traffic affect your teaching time?

Yes

No.

b) If the answer is yes above, Can you estimate the time lost in relation to you subject in a term?

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11. How far is your school from a Market Centre/Town?

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12. Has proximity to the Market centre/ Town affected students Performance? Explain Briefly

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**PART E: School performance**

13. What measures does the school administration take to ensure good performance in KCSE Examination in the school?

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14. In your opinion, what factors have led to varied levels of performance from year to year and student to student in KCSE Examination in the school

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**Thank you for your time and co-operation**

#### Appendix IV: Research Questionnaire for Students

This questionnaire seeks to gather information concerning factors influencing students performance of KCSE in Public Day Secondary schools in Kikuyu Sub County, Kiambu County. You have been selected for the purpose of the study. Your genuine responses will be appreciated. High level of confidentiality will be assured. The information obtained will be used purely for academic purposes.

##### PART A: Demographic data

1. What is your gender?

Male

Female

2. What is your age bracket?

(i) 15 – 17 yrs

(ii) 18 – 20 yrs

(iii) 21 – 22 yrs

(iv) 23 yrs and above

##### PART B: Learning Resources

The following are questions about the availability of learning resource in your school. Please respond to each question by ticking (✓) against the appropriate information regarding the resources or writing a short statement.

3. (a) Do you use text books in your school?

Yes

No

(b) When a student fills up an exercise book, how long does it take for him/her to be issued with a new one? \_\_\_\_\_

**PART C: Institutional Facilities**

4. Below is a list of facilities necessary for effective learning. To what extent are they available in your school?

Facilities	Very adequate	Adequate	Inadequate
Computers			
Computer lab			
Library			
Laboratory			
Classrooms			
Others (please specify) _____ _____			

(b) How often do you utilize the facilities?

Facilities	Ones	Often	Not at all
Computers			
Computer lab			
Library			
Laboratory			
Others (please specify) _____ _____			

**PART D: Student Socio-economic background**

5. What is your parents' level of education?

- (i) No education at all

- (ii) Standard eight
- (iii) Form four ('O' level)
- (iv) Diploma
- (v) Higher National diploma
- (vi) Degree
- (vii) Masters degree
- (viii) Others (please specify) \_\_\_\_\_

b) What are the occupations of your parents / guardians?

Father \_\_\_\_\_

Mother \_\_\_\_\_

Guardian \_\_\_\_\_

(ii) Who pays your school fees? \_\_\_\_\_

(iii) Is your school fees paid on time?

Yes

No.

6. What is your parents / guardians level of participation in the following school activities?

Activity	Always	Often	Sometimes	Rarely	Never
Discussion of academic performance of the school / student					
Meetings regarding students					
Open day activities					
PTA meetings					

7. Do your parents / guardians commends you when you improve academically

Yes

No.

8. Are your parents / guardians a good role model academically?

Yes

No.

**PART E: SCHOOL ENVIRONMENTAL FACTORS**

9. a) How far is your home from School?

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b) What mode of transport do you use to School?

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c) Has the Distance from School affected your Academic Performance? Explain

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10. a) How far is your school from the road?

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b) i) Does the traffic on the road affect your concentration in class?

Yes

No.

ii) If your answer is yes above, then explain briefly

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11. How far is your school from a Market Centre/Town?

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12. Has proximity to the Market centre/ Town affected your Performance? Explain Briefly

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**PART G: School performance**

13. In your opinion, what factors may lead to your good or poor performance in KCSE Examination?

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**Thank you for your time and co-operation**

**Appendix V: Total Teachers and Form Four Students in Kikuyu sub county**

S/N	CODE	SCHOOL	CATEGORY	STUDENTS ENT	TEACHING STAFF
1	11230405	RUNGIRI	MDS	204	41
2	11230201	KARAI MIXED	MDS	73	17
3	11230304	KERWA	MDS	79	16
4	1123304	MUSA GITAU	MDS	120	22
5	11230103	ST.KEVIN	MDS	53	15
6	11230401	KIKUYU DAY	MDS	125	22
7	11230306	KANJERU GIRLS	GDS	66	17
8	11230207	PCEA MAI-A-IHII	MDS	41	12
9	11230302	MUGUGA WAGATONYE	MDS	101	19
10	11230111	ACK GIKUNI	MDS	46	10
11	11230108	ACK NYATHUNA	MDS	42	11
12	11230105	KABETE	MDS	83	83
13	11230312	NDERI	MDS	41	9
14	11230204	RINGUTI	MDS	55	15
15	11230106	GATHIGA	MDS	42	13
16	11230203	GICHURU MEMORIAL	MDS	66	17
17	11230403	MUHU	MDS	43	12
18	11230104	KANYARIRI	MDS	65	14
19	11230301	KIBICIKU	MDS	77	16
<b>TOTAL</b>				<b>1422</b>	<b>314</b>

**Source: Kikuyu sub county Education Officer, 2012**

**Appendix VI: Kikuyu sub county Public Secondary Schools K.C.S.E Result Analysis**

S/N	SCHOOL	CATEGORY	MODE	ENT	MEAN INDEX		
					2012	2011	2010
1	MARY LEAKEY	PROVINCIAL	BOARDING	191	8.28795 8	8.2747	8.053
2	RUNGIRI	DISTRICT	BOARDING /DAY	204	7.07727 3	6.4263	6.063
3	MOI GIRLS	PROVINCIAL	BOARDING	113	6.99115	6.7966	6.581
4	UTHIRU	PROVINCIAL	BOARDING	114	6.97916 7	7.3154	7.239
5	KAHUHO UHURU	DISTRICT BOARDING	BOARDING	196	6.88265 3	6.5145	5.685
6	KARANGARI	PROVINCIAL	BOARDING	126	6.77777 8	6.8919	6.445
7	KARAI MIXED	DISTRICT	DAY	83	4.84337 3	4.8391	4.701
8	KERWA	DISTRICT	DAY	66	4.83333 3	3.1684	2.302
9	MUSA GITAU	DISTRICT	DAY	95	4.83157 9	4.4653	4.198
10	ST.KEVIN	DISTRICT	DAY	32	4.59375	3.5806	3.969
11	KIKUYU DAY	DISTRICT	DAY	118	4.17796 6	4.2342	4.254
12	KANJERU GIRLS	DISTRICT	DAY	71	4.02816 9	3.6867	4.179
13	PCEA MAI-A-IHII	DISTRICT	DAY	37	4.02702 7	3.1961	3.711
14	MUGUGA WAGATONYE	DISTRICT	DAY	104	4.01923 1	3.297	3.699
15	ACK GIKUNI	DISTRICT	DAY	34	3.85294 1	NEW	NEW
16	ACK NYATHUNA	DISTRICT	DAY	34	3.82352 9	3.565	2.846
17	KABETE	DISTRICT	DAY	73	3.79452 1	4.092	3.837

18	NDERI	DISTRICT	DAY	29	3.55172 4	2.7879	NEW
19	RINGUTI	DISTRICT	DAY	56	3.48214 3	3.2712	3.23
20	GATHIGA	DISTRICT	DAY	57	3.38596 5	3.092	3.569
21	GICHURU MEMORIAL	DISTRICT	DAY	74	3.17567 6	2.8514	3
22	MUHU	DISTRICT	DAY	61	3.13114 8	3.1884	3.359
23	KANYARIRI	DISTRICT	DAY	85	3.11764 7	2.6632	2.395
24	KIBICIKU	DISTRICT	DAY	76	2.61842 1	3.45	3.234
	<b>TOTAL</b>			<b>2145</b>			

Source: Source: Kikuyu sub county Education Officer, 2012